TECHNICAL DOCUMENTATION

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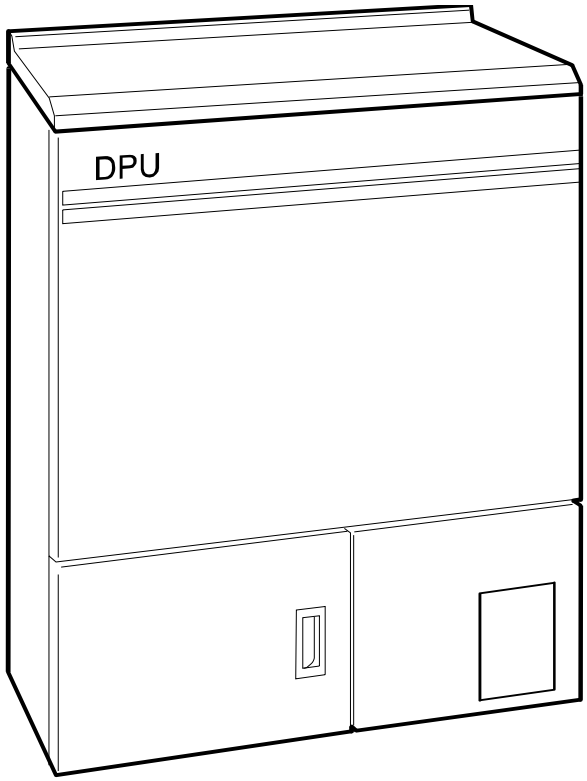

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AGFA DPU

Digital Print Unit

Type 8508/400

Edition 02.11.98 /PN 8103

AGFA MINILAB
BUSINESS SYSTEM

AGFA

List of registers

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Operation	03.06.98	2
Maintenance	03.06.98	3
Troubleshooting	02.11.98	4
Spare Parts	03.06.98	5
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Preinstallation

General

Basic Structure

The DPU (Digital Print Unit) is used to produce digital prints. It is attached to the left side of the MSC 100 or MSC 200. An IP (Image Processor) serves as interface between the workstation and the DPU. The IP is connected to the workstation via Ethernet. An image sent to the IP is printed by the DPU.

The DPU Handshake program is used for a better adjustment of the digital images to the paper in use. It is also supplied by Agfa and is installed on the workstation.

The DPU is fitted with a magazine holder. All digital images as well as the Indexprints can only be exposed from this side. Printing frames is possible as well.

Requirement of the workstation

DPU users who do not want to use PIXTASY need an external image processing workstation. Detailed information is given in the brochure of the local Agfa subsidiaries. Only those components needed for the network connection to the IP are described in the following:

Network board	Ethernet 10 Base-T or 100 Base T with Twisted Pair connection (no coax!)
For a direct connection of a workstation to the IP	NetBEUI protocol installed
For a network of several workstations to IP	TCP/IP and/or NetBEUI protocol installed Sweep (distributor function) Twisted Pair cable for every workstation
For a remote workstation or a sweep -- IP (> 5m)	Twisted Pair cable

Tasks of the AGFA Service technician

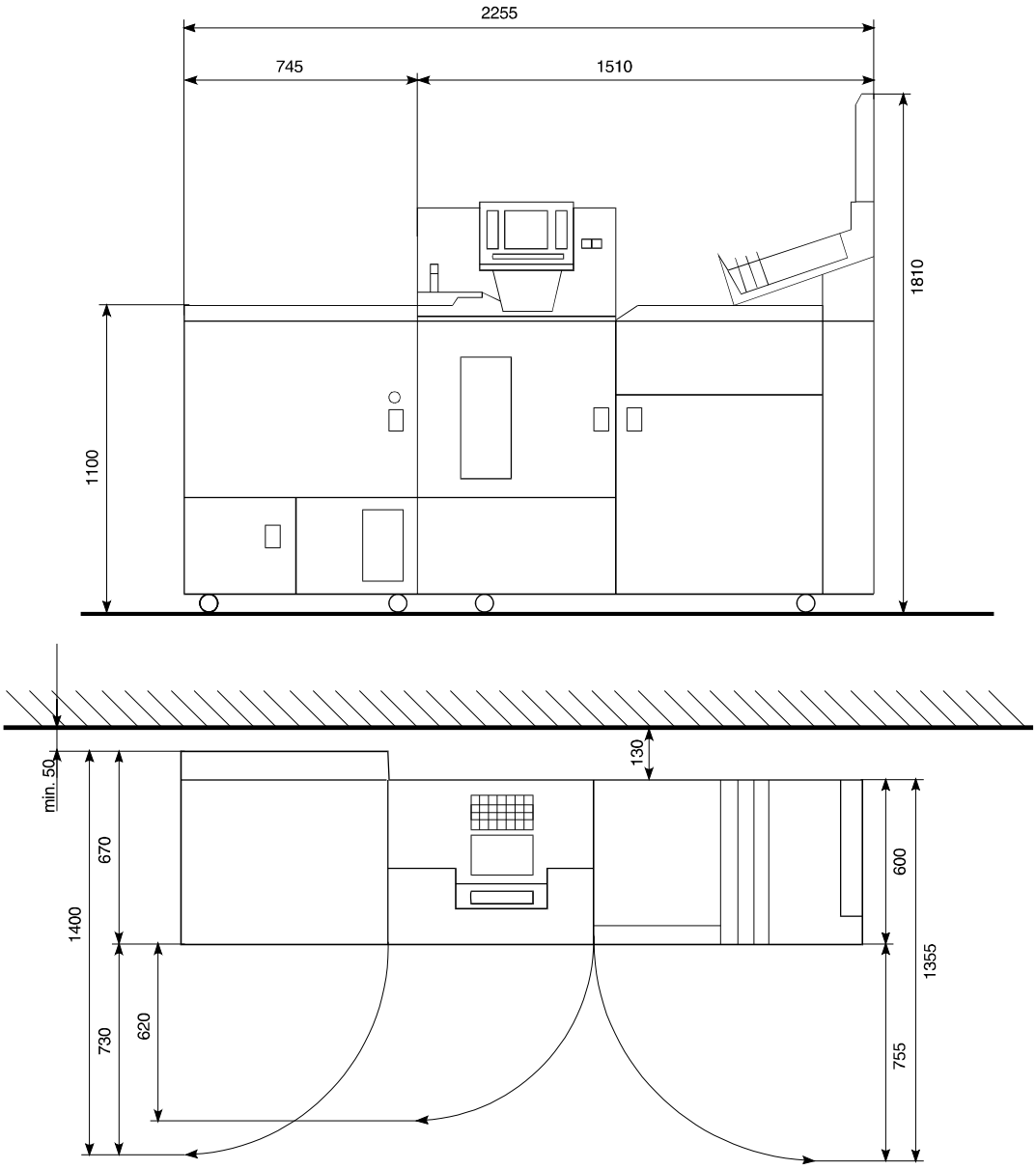
- Attachment of the DPU to the existing MSC 100 or MSC 200
- Connection of the IP
- Creation and calibration of digital channels and Index configurations (together with the operator/customer)
- Instruction of the operator/customer how to operate the DPU
- Loading the Agfa DPU Handshake Software
- Entry of the user, computer and group names predefined for the IP
- Creation of the network path to the transfer directory of the IP
- Instruction of the operation how to use the AGFA Handshake Software

Note The external workstation cannot be serviced by the AGFA service technician. The installation of the network components as well as of additional peripheral units has to be ensured by the customer.

Floor Space Requirements

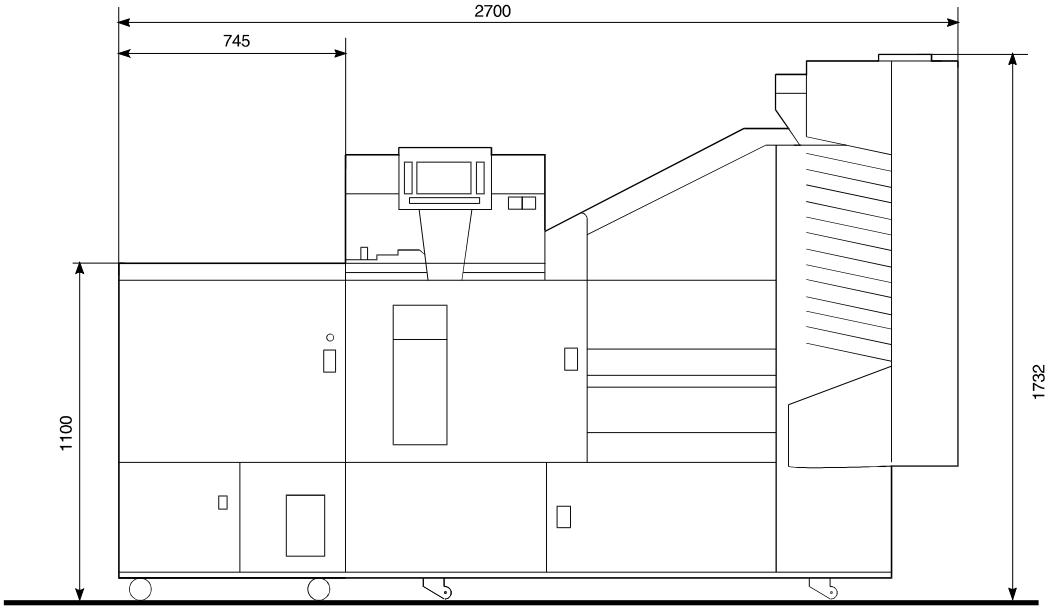
No special requirements are needed to operate the DPU. Only an additional surface of about 1 sq.m next to the MSC is required. The exact dimensions are given in the following chapters.

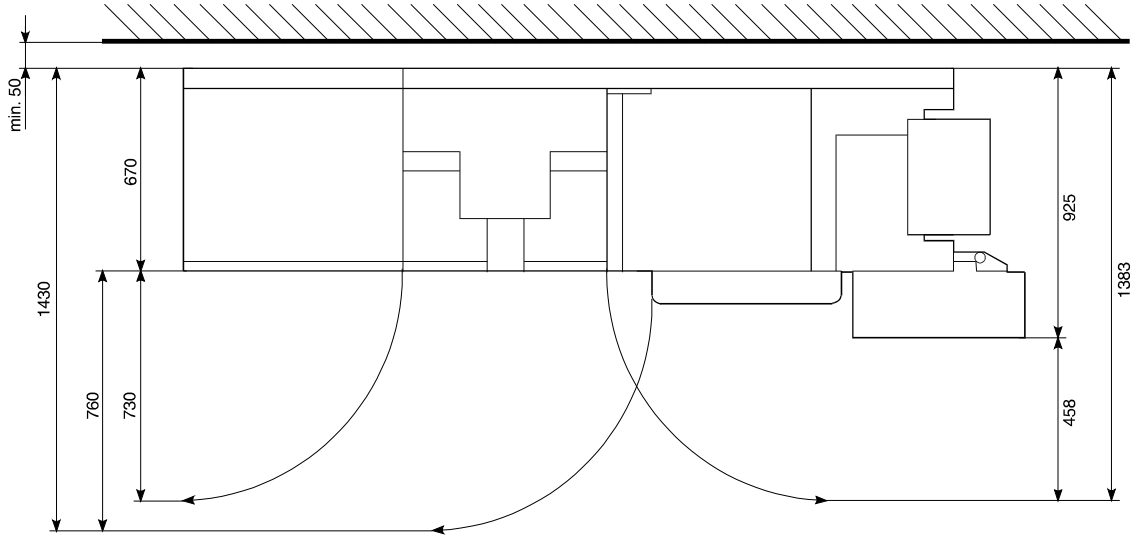
Dimensions for the connection to an MSC 100



- The MSC 100 + DPU require a total surface of 3,5 sq.m. If the MSC 100 is installed very close to the wall, it has to be moved away from the wall.
- To obtain a minimum distance of 5 cm between the DPU and the wall, the MSC 100 has to be at least 13 cm away from the wall.

Dimensions for the connection to an MSC 200





▼ The MSC 200 + DPU require a total surface of 5 sq.m. The minimum distance of 5 cm with respect to the wall must be kept.

Room lighting

The room lighting must be sufficiently bright so that the colour hues on the prints can be recognised.
The use of daylight fluorescent tubes is recommended (400 - 1000 Lux).

Note Avoid the impact of direct sunlight.
The maximum illumination should not exceed 10000 Lux.

Operating conditions

Room temperature:	+15°C ..+30°C
Relative humidity:	15% - 75%
Noise level:	< 70 dB(A)
EMV:	Class B

Overview

Current consumption

The DPU needs 750 W in operation. The power supply unit adjusts itself automatically to the existing voltage within a range of 100 V to 240 V. The connection is single-phase to a normal socket outlet.

Mains voltage	100 V	115 V	120 V	127 V	200 V	220 V	230 V	240 V
Current	7,5 A	6,5 A	6,25 A	5,9 A	3,8 A	3,4 A	3,3 A	3,2 A

Note The Image Processor is not included. The values are as follows:
90 - 140 V max 2A
190 - 264 V max 1 A

Electrical fusing

No special fusing is required for the operation of the DPU.

Weight

DPU	180 Kg
DPU + MSC 100	700 Kg
DPU + MSC 200	1040 Kg

Storage and transport

Temperature range:	-50°C ..+60°C
Relative humidity:	up to 95%

Prerequisites for the connection of the DPU

▼ The following prerequisites have to be met so that the DPU can be operated together with the MSC:

- IP (Image Processor) type 8508/410 available
- Camera Kit type 8506/313 installed in the MSC (only if Indexprints are made)
- Software V 2.61 or higher installed in the MSC
- 53A-CPU board type 8506/351 (only for MSC 100)

Note The DPU cannot be connected to an MSC 101!

An LCD system that may be installed has to be removed completely. The original test negative unit is needed again.

Densitometer of the MSC

The densitometer has to be of the right technical level so that the test prints of the DPU can be measured correctly.
The following items have to be observed and checked:

- Densitometers carrying an SN < 5000 have to be replaced in general (type 8506/921)
- In densitometers carrying SN between 5000 and 7000, the Eprom has to be changed. The Eprom of SW V 5.7 has to be mounted. In addition, these densitometers not marked by a red dot have to be calibrated. In this case, it is recommended to order the conversion kit for the control strip handling (CM+9.8506.9740.0). All required parts needed for the calibration are contained in this kit.
- In densitometers carrying SN from 7000, only the Eprom with SW V 5.7 has to be mounted.

Part number for the densitometer Eprom SW V 5.7: CM+9.8506.9750.0

Basically, all MSC 100 and MSC 200 are equipped already with the densitometers SN < 7000 when they are delivered. Unfortunately there are a few exceptions. The serial numbers of the MSC that have an older densitometer or a densitometer of an unknown level are given in the following table.

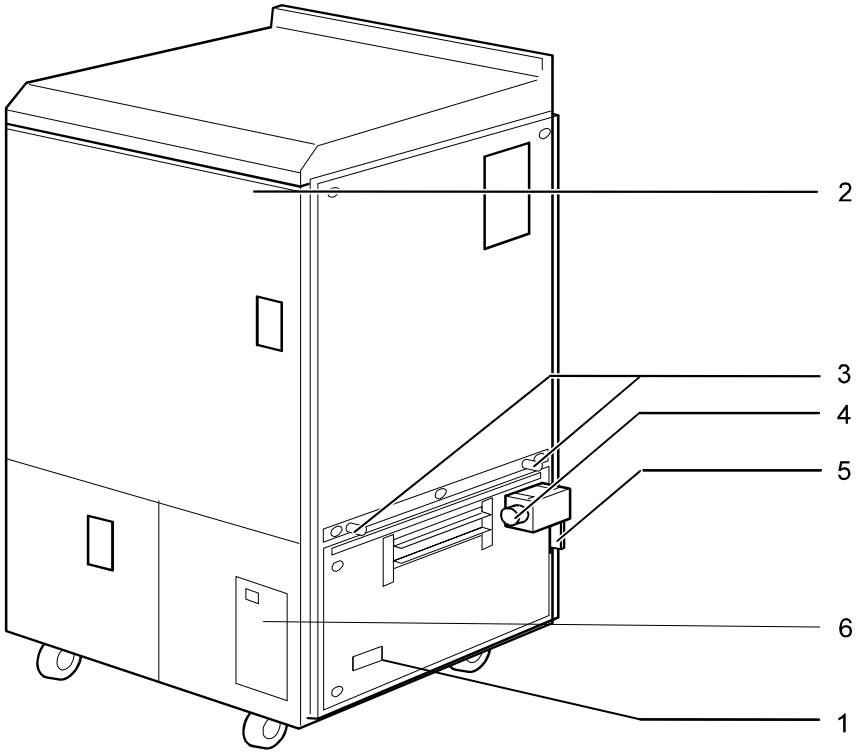
MSC 100

Machine SN TÜV	Machine SN UL	Machine SN ACC	Densito meter SN	Dens SN <5000 = change	Dens SN unknown = check
		111-120			✓
		125-127			✓
		131 -139			✓
111					✓
121					✓
122					✓
	123				✓
	124				✓
1994-1999					✓
2001-2015					✓
	2001-2052				✓
					✓
2016-2055					✓
		2001-2010			✓
		2021-2025			✓
	2089		3021	✓	
		2036	4396	✓	
2129			4501	✓	
2136-2138					✓
2151-2157					✓
5034					✓

MSC 200

Machine SN TÜV	**Machine SN UL**	**Machine SN ACC**	**Densitometer SN**	**Dens SN <5000 = change**	**Dens SN unknown = check**
112					✓
113					✓
115					✓
116					✓
121					✓
		119			✓
	117				✓
	118				✓
132					✓
		132			✓
125 -131					✓
133					✓
136					✓
140					✓
141					✓
146			4954	✓	
149			4843	✓	
150			4489	✓	
151			4875	✓	
152			4879	✓	
153			4841	✓	
154			3294	✓	
155			4882	✓	
156			4956	✓	
161			4194	✓	
164			4887	✓	
165			4898	✓	
167			4894	✓	
168			4930	✓	
	143				✓
		164	4944	✓	
		2017			✓
		2021			✓
2260					✓

Scope of delivery



TI10

1 Cable passage (only for MSC 100)
2 Front door
3 Positioning pins
4 Coupling for drive gear of the LH cutter
5 Connector
6 Door of the scrap box

- DPU exposure unit
- 51D-EXI board
- Spacers for 51D-EXI board
- Fastening screws
- Documentation
- Cable set for the connection to the MSC 100

Required tools

- Open-end spanner size 13
- Open-end spanner size 17
- Open-end spanner size 24
- Cross tip screwdriver
- Allen key 2,5 mm
- Allen key 3,0 mm with ball head

Software

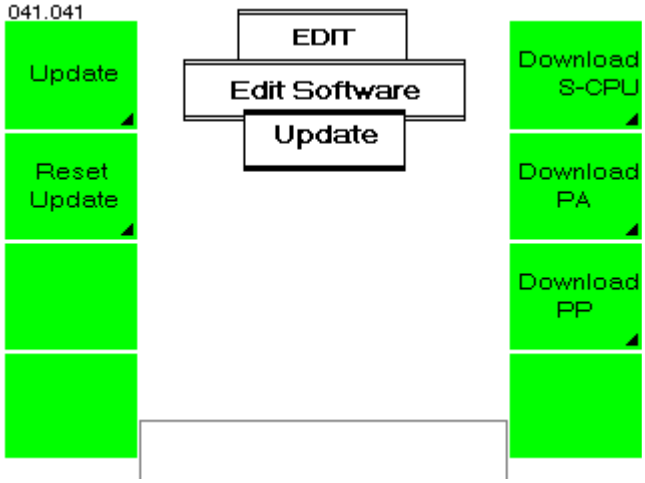
▼ If the Software V2.61 has not yet been installed, it should be loaded:

Loading the Software V2.61 (or higher)

Note The loading of the new Software takes about 40 minutes. While the Updating is running, other jobs can be performed, i.e. removing panels.

❑ Take the first diskette of the MSC Software and put it in the disk drive of the MSC.

❑ Select the corresponding menu on the MSC:



❑ Select **UPDATE**. The machine begins the Update of the Software. After a certain time (up to 30 minutes) you are asked to insert the second diskette and then the third one. At the end of the updating, the machine switches off and back on automatically. Please also read the documentation attached to the Software.

❑ Select **INFO/SOFTWARE VERSION** and check whether the updating has been successful:

	MSC 100	MSC 200
MAIN	2.61	2.61
FD	3.17	3.17
PA	2.53	3.38
PP	1.50	3.23
SCPU	---	3.33

❑ There are a few other parameters left that have to be entered in the file **PA_MC.DAT**.

Changing the parameter IDENT in PA_MC.DAT

- ❑ Return to the Root menu. Connect an external keyboard and enter <Q>.

The MSC terminates the program and goes to the DOS level.
Display: **C:\MSC1**

- ❑ Open the file **PA_MC.DAT** with the MS DOS Editor.
- ❑ Search the parameter **IDENT**. Change this value acc. to the machine:
  30 for MSC 100
  40 for MSC 200

This is to inform the Software, that the DPU has been installed.

- ❑ Do not save the file yet, but go to the next chapter.
  There are other parameters to enter.

Entering the parameters of the DPU in PA_MC.DAT

To ensure a correct paper transport in the DPU, some additional parameters have to be entered. There is a sheet of paper on the inside of the large door of the DPU on which all parameters and the corresponding values are indicated. They have to be entered exactly as indicated on the paper *(see example).*

```
DCUTX+00
DCUTZ4992
DEXPP4976
PWGHP+00
SCUTZ+01
```

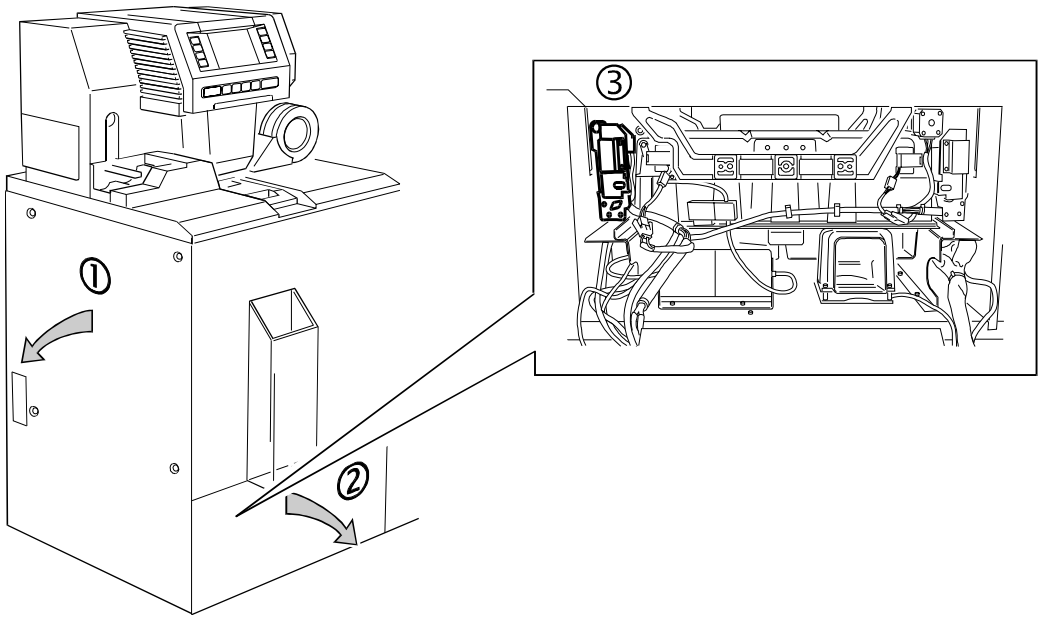
- ❑ Save the file and close it.
- ❑ Switch off the machine by the main switch.

Mechanical Installation

Connection to an MSC 100

Preparing the MSC

- ❑ If the MSC 100 is still switched on, terminate all orders and switch it off.
- ❑ If the option Left paper magazine is installed, it has to be dismounted. It is not needed any more.
- ❑ Remove the LH cover part ①, as well as the black cover behind.
- ❑ Open the electronic rack ②, unscrew the fastening screw of the LH cutter and pull the latter approx. 3 cm to the front ③.
- ❑ If the LCD Index System is installed, dismount it. Mount the original test negative unit again.



200PK01

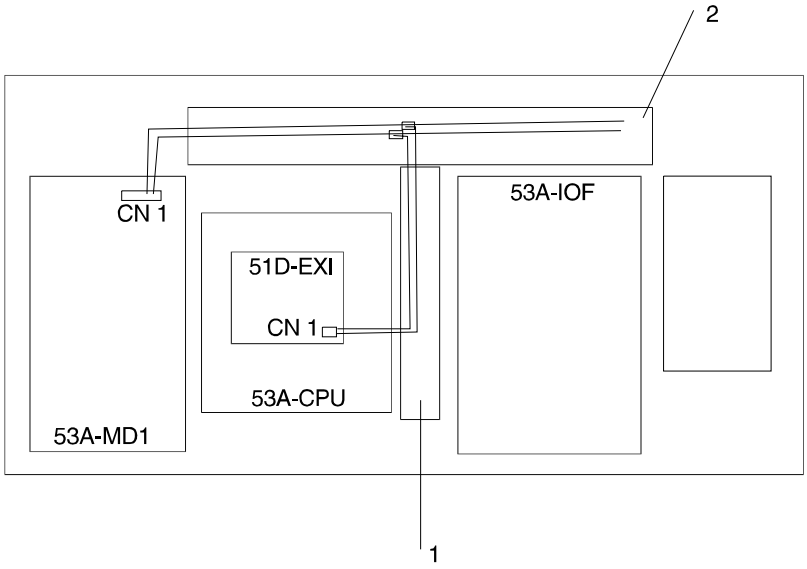
Changing the CPU of the Printer

- ❑ Disconnect all plugs from the 50A-CPU PCB. Remove the board, it is not needed any more.
- ❑ Install the 53A-CPU PCB instead. Make sure when switching on the MSC 100 again that a Download PA is performed automatically. If not, do it yourself.

Installation of the 51D-EXI board in the MSC 100

This board is needed to control the DPU. It is supplied in the additional pack.

- ❑ Put the 51D-EXI board on the 53A-CPU.



- ❑ Take the connector with the designation EXI CN1 from the cable set for the MSC 100.
- ❑ Connect it to CN1 on the EXI board.
- ❑ Remove the covers from the two cable ducts *(Pos 1 and 2).*
- ❑ Look for the red and the black cable in the cable duct *(Pos 2)* that run to the 53A-MD1 board.
- ❑ Crimp the two cables of the connector EXI CN1. Always link cables of the same colour.
- ❑ Run the cables as shown in the above figure and put the covers back on the cable ducts.

Note If the DPU does not start when the MSC is switched on, check the two crimp connections. Squeeze them again with a pair of pliers.

Installing the cable set for MSC 100

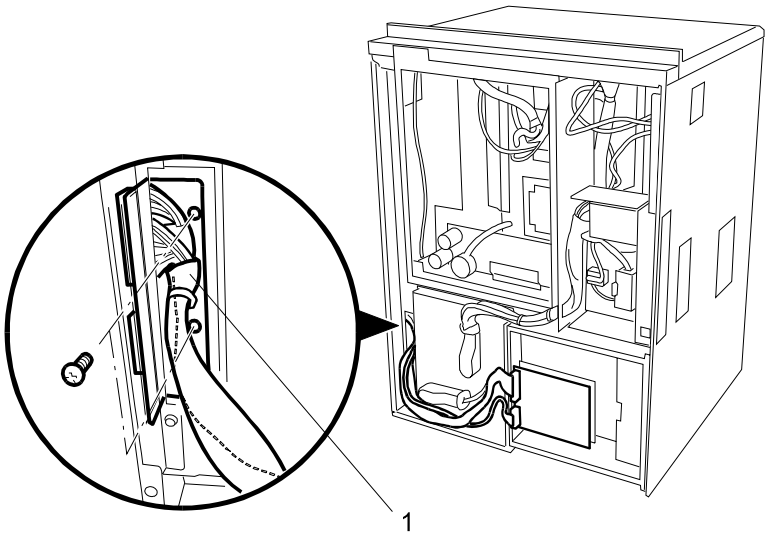
- ❑ Unscrew the covers at the back and the front of the DPU.
- ❑ Dismount the connector shown in the figure. Disconnect all cables with plugs from the connector:

– MAD CN 1

– MAD CN 2

– LSGAMD CN (detection of the paper magazine)

– PRD CN 7

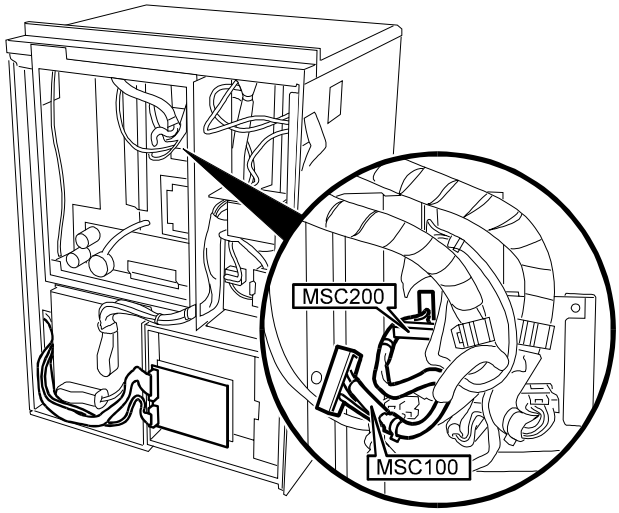


1 Dismount this connector

- ❑ Mount the delivered cable set. All connectors mentioned above have to be reconnected.

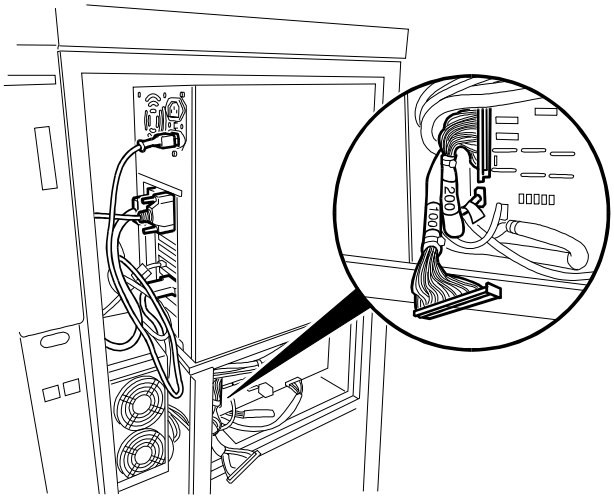
Changing the control cable of the FOCRT unit

- ❑ Remove the large black cover at the back of the DPU.
  The FOCRT unit is then accessible.
- ❑ Remove the connector marked MSC 200 and replace it by the one marked MSC 100 *(see figure below).*



Changing the paper transport control cable

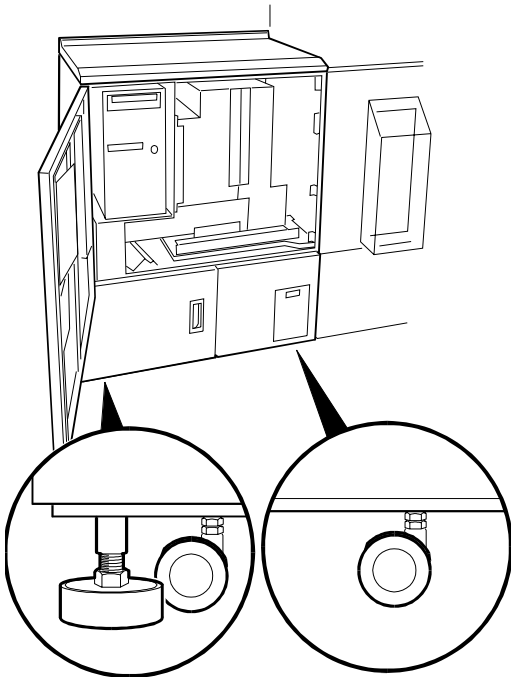
- ❑ On the board 51A-PRD, replace the connector CN2 by the one marked MSC 100.
  The cable is mounted already in the DPU.



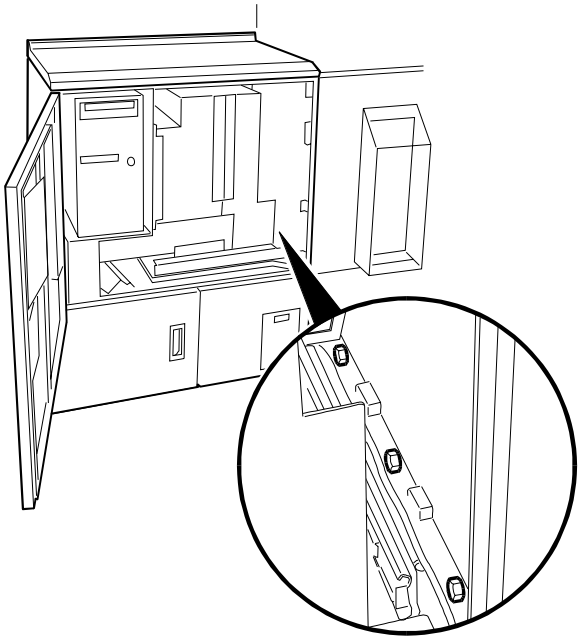
Attaching the DPU

Note If the DPU and the MSC 100 are operated close to a wall, the cables of the Index Printer Scan and the Index Printer Data have to be installed in the DPU first before the latter is attached. *See chapter Connecting the IP*.

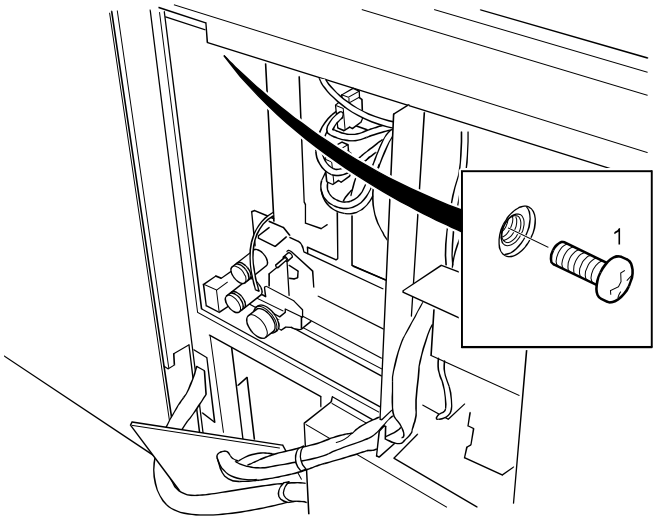
- ❑ Push the DPU against the machine, making sure that the positioning pins fit into the holes on the machine.
  Level any difference in height that may exist by unscrewing the front rollers. At the back, the DPU is adjusted to the right level by means of the adjusting feet.

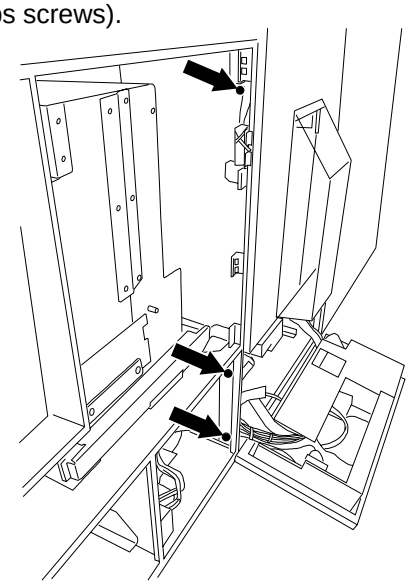


- ❑ Screw the DPU to the MSC at the front positioning pin rail first.
  (3 hexagon head screws size 13)



- ❑ Screw on the DPU in the other spots (4 Phillips screws).

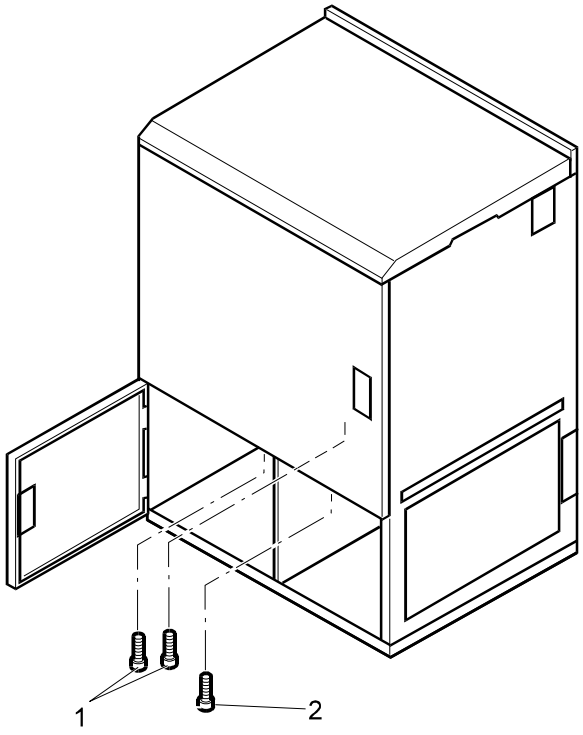




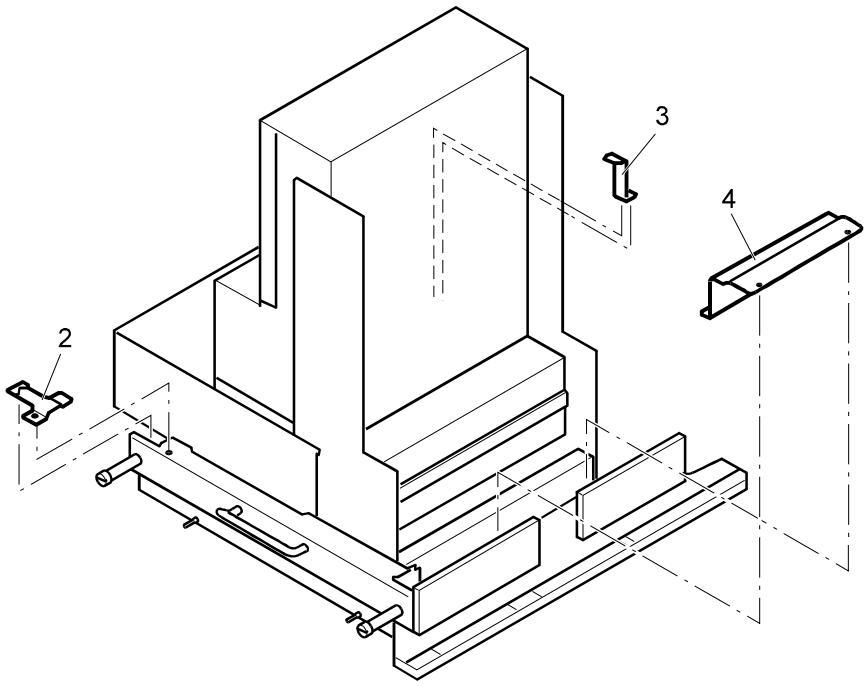
Dismounting the transport securities

- ❑ Dismount the two Allen screws in the paper magazine compartment (*Pos 1*)
- ❑ Another screw is located on the right side in the paper transport section (*Pos 2*). The screws to be unscrewed for the removal of this cover are located just above the bottom (2 Phillips screws).

Note Use an Allen key size 3mm with a ball head for this job.

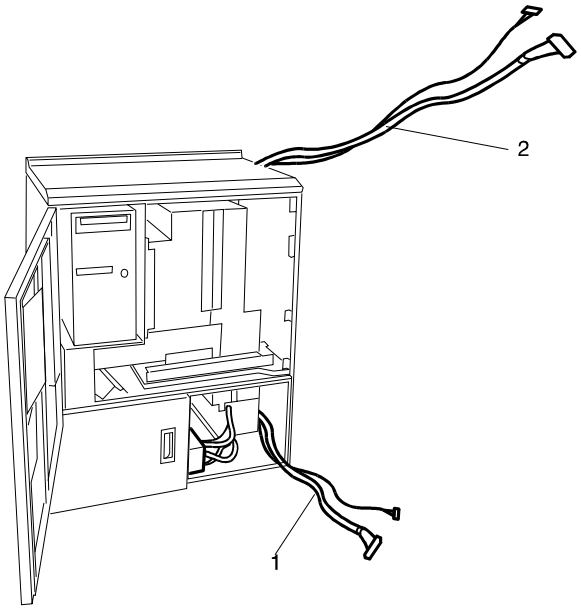


- ❑ Dismount all three holding brackets *(Pos 2, 3, 4)* used to fasten the FOCRT unit inside the DPU.

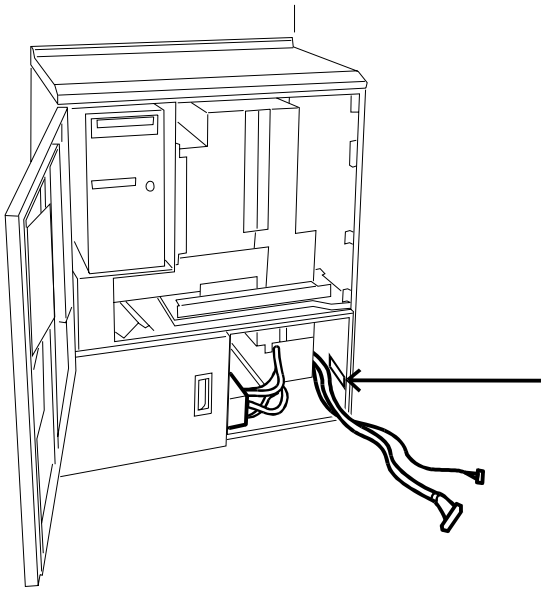


Connection to the MSC 100

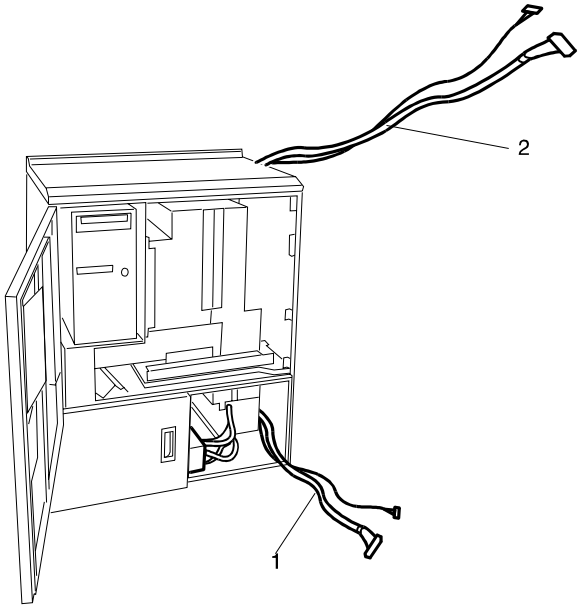
- ❑ Dismount the cover at the bottom right (with the scrap box) and pull out the two cables *(Pos 1)*.



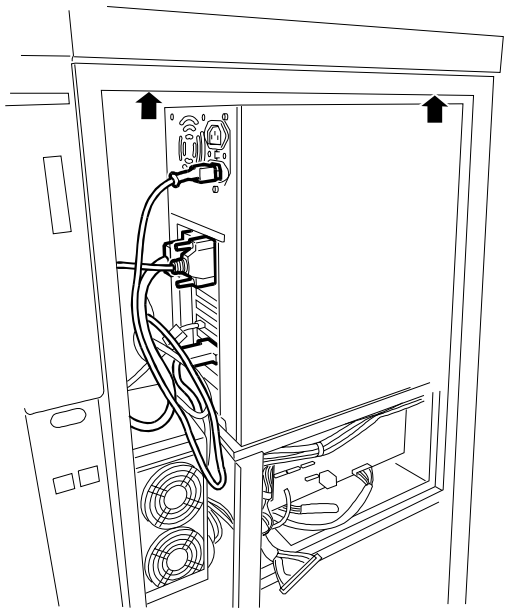
- ❑ Run the two cables of the DPU through the opening *(see figure below)* up to the board 51D-EXI of the MSC.
- ❑ Connect the two connectors to the EXI board (CN 7 and CN 8). The other slots remain vacant.



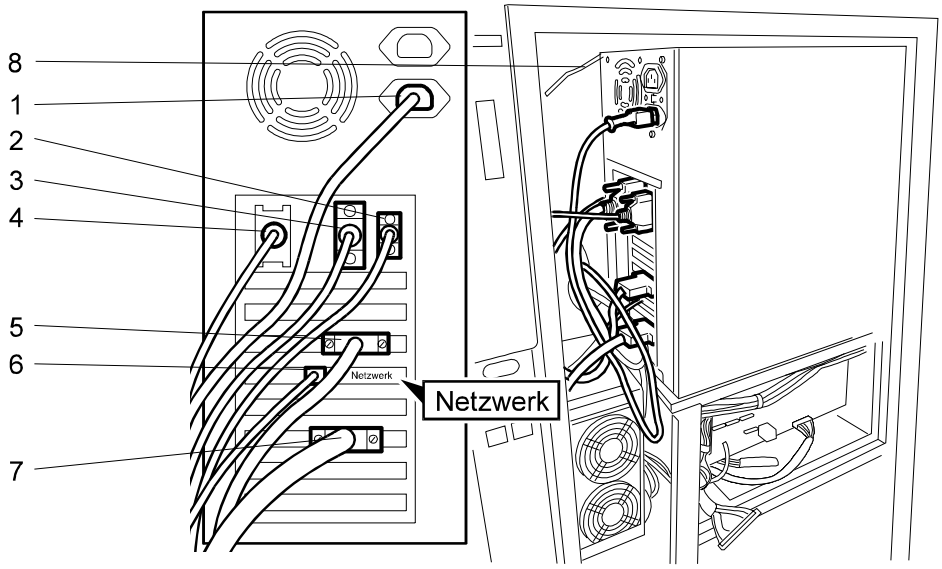
Hiding the cables for MSC 200



- The two cables carrying the same designation that come out from under the top cover *(Pos 2)* are not needed (only for MSC 200). They can be hidden under this cover. For this, unscrews the screws marked by the arrows, pull the cover towards you and lift it off.

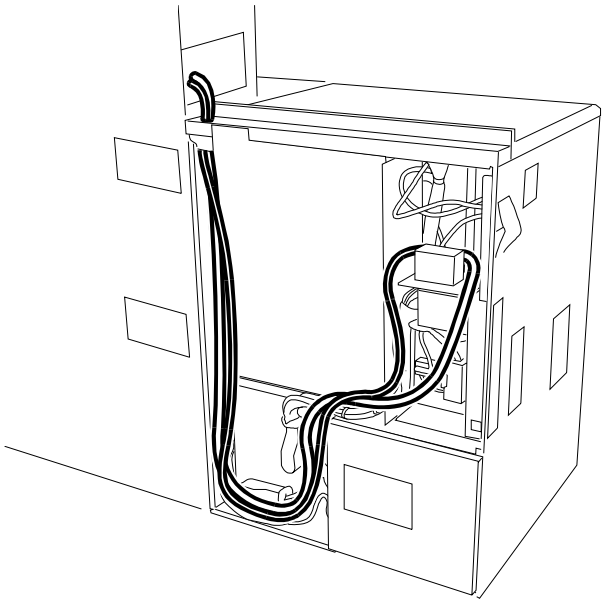


Connecting the IP



1 Power cable
2 Connection for a serial mouse (not used in normal operation)
3 Index Printer Scan
4 Keyboard connection (not used in normal operation)
5 Index Printer Data
6 Ethernet connection
7 Connecting cable to the FOCRT
8 GND connection for the IP

- ❑ Put the IP into the free compartment on the left side of the FOCRT unit
- ❑ Connect the cables shown above to the IP.
- ❑ Take the power cable that is normally used for the screen and connect the other end to the high-voltage output in the DPU.
- ❑ Link the GND connection of the IP with the frame of the DPU.
- ❑ Run the cables to the Agfa computer as shown in the following figure.



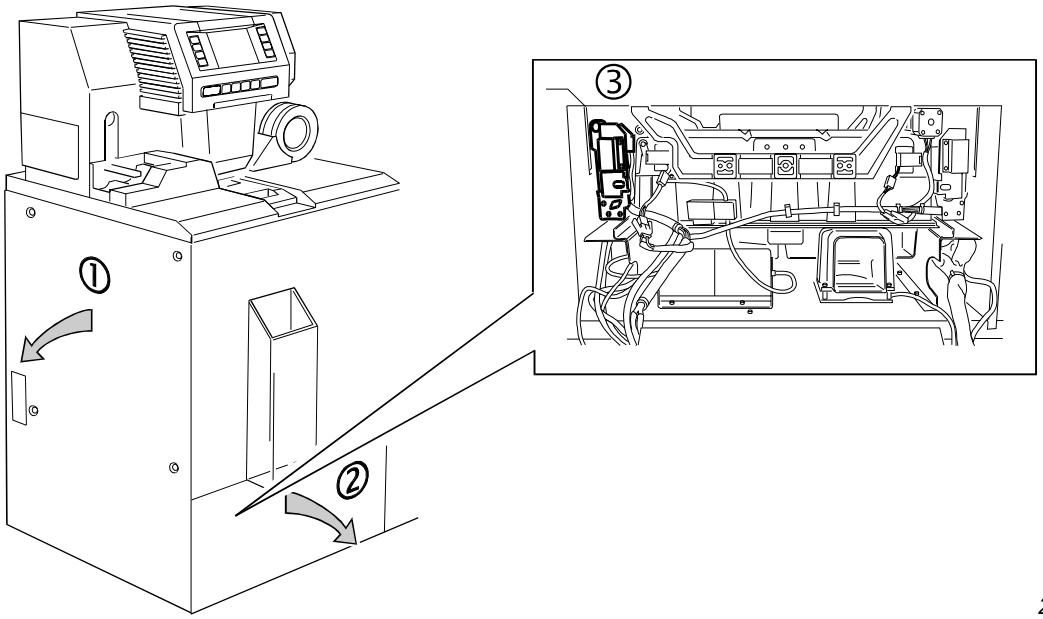
Final work

- ❑ Put back all covers of the DPU
- ❑ Mount the scrap box to the DPU at the bottom right.
- ❑ Install the cutter again in the MSC and close the electronic cover.
- ❑ Use the power cable in the IP accessory pack to connect the DPU to the mains socket outlet.
- ❑ *Now go to the chapter After the first switch-on*

Connection to an MSC 200

Preparing the MSC

- ❑ If the MSC 200 is still switched on, terminate all orders and switch it off.
- ❑ If the option Left paper magazine is installed, it has to be dismounted. It is not needed any more.
- ❑ Remove the negative carrier and the mirror box
- ❑ Dismount the cover from the lamphouse and the Scanner tray.
- ❑ Remove the metal plate underneath (2 screws)
- ❑ Remove the LH cover part ①, as well as the black cover behind.
- ❑ Open the electronic rack ②, unscrew the fastening screw of the LH cutter and pull the latter approx. 3 cm to the front ③.
- ❑ If the LCD Index System is installed, dismount it. Mount the original test negative unit again.



200PK01

Installation of the EXI board

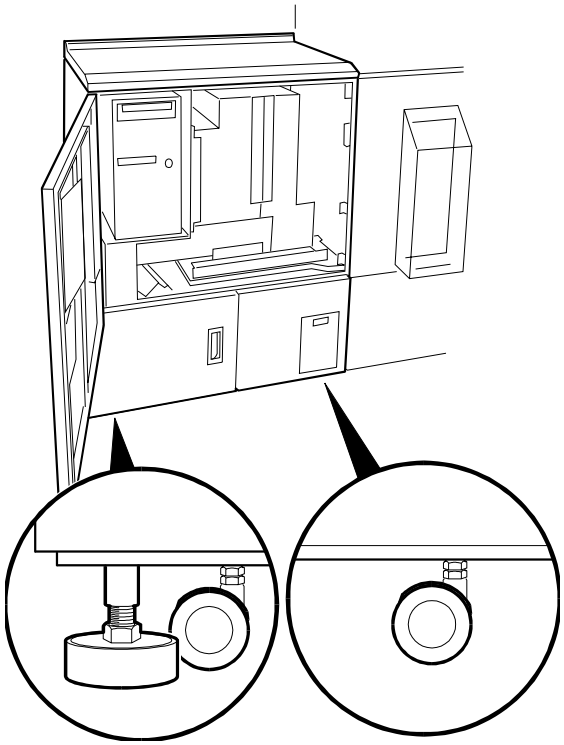
This board is needed to control the DPU. It is supplied in the accessory pack.

- ❑ Put the EXI board on the 53A-CPU.
- ❑ There is a connector in this area that carries the designation IXP CN1. Connect it to CN1 on the EXI board.

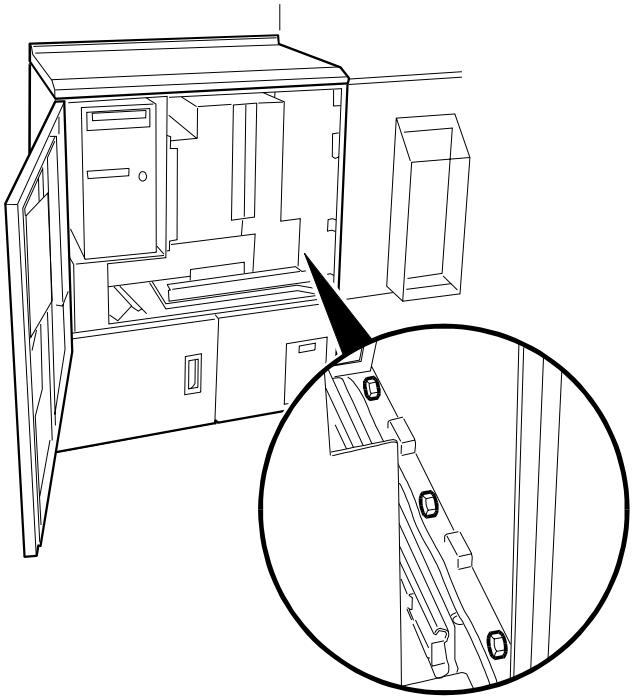
Attaching the DPU

Note If the DPU and the MSC 200 are operated close to a wall, the cables of the Index Printer Scan and the Index Printer Data have to be installed in the DPU first before the latter is attached. *See chapter Connecting the IP*.

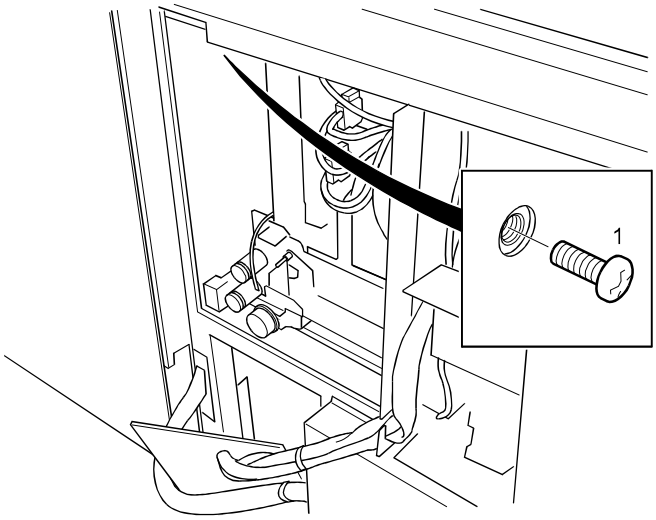
- ❑ Push the DPU against the machine, making sure that the positioning pins fit into the holes on the machine.
  Level any difference in height that may exist by unscrewing the front rollers. At the back, the DPU is adjusted to the right level by means of the adjusting feet.

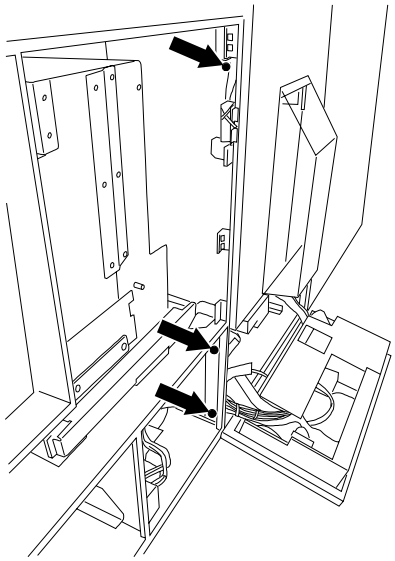


- ❑ Screw the DPU to the MSC at the front positioning pin rail first.
  (3 hexagon head screws)



- ❑ Screw on the DPU in the other spots (4 Phillips screws).

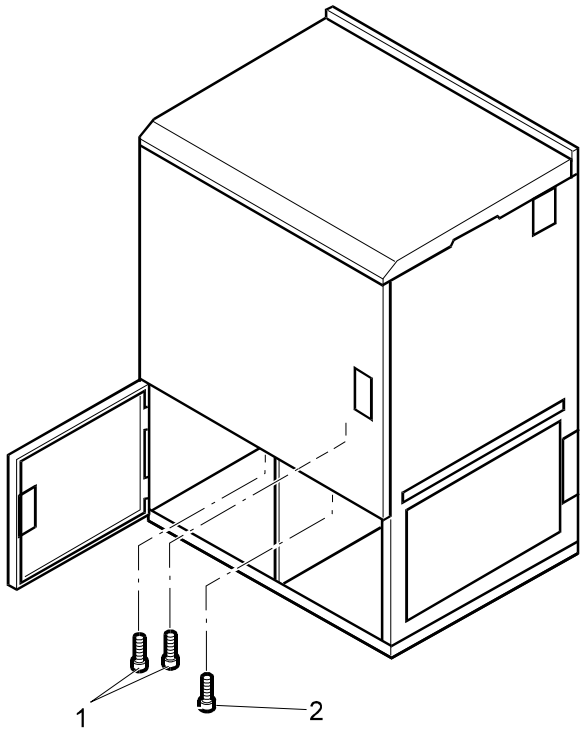




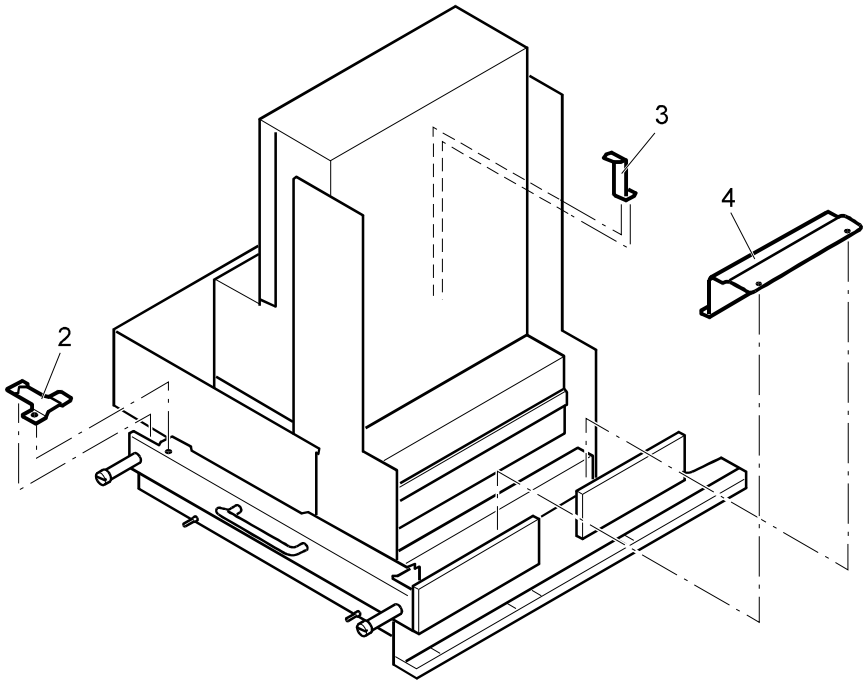
Dismounting the transport securities

- ❑ Dismount the two Allen screws in the paper magazine compartment (*Pos 1*)
- ❑ Another screw is located on the right side in the paper transport section (*Pos 2*). The screws to be unscrewed for the removal of this cover are located just above the bottom (2 Phillips screws).

Note Use an Allen key size 3mm with a ball head for this job.

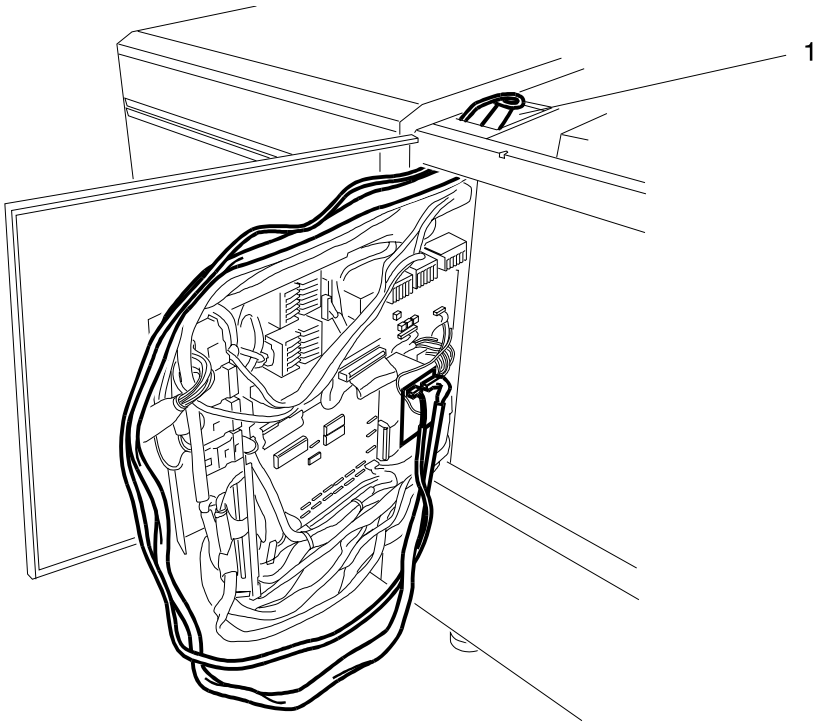


- ❑ Dismount all three holding brackets *(Pos 2, 3, 4)* used to fasten the FOCRT unit inside the DPU.

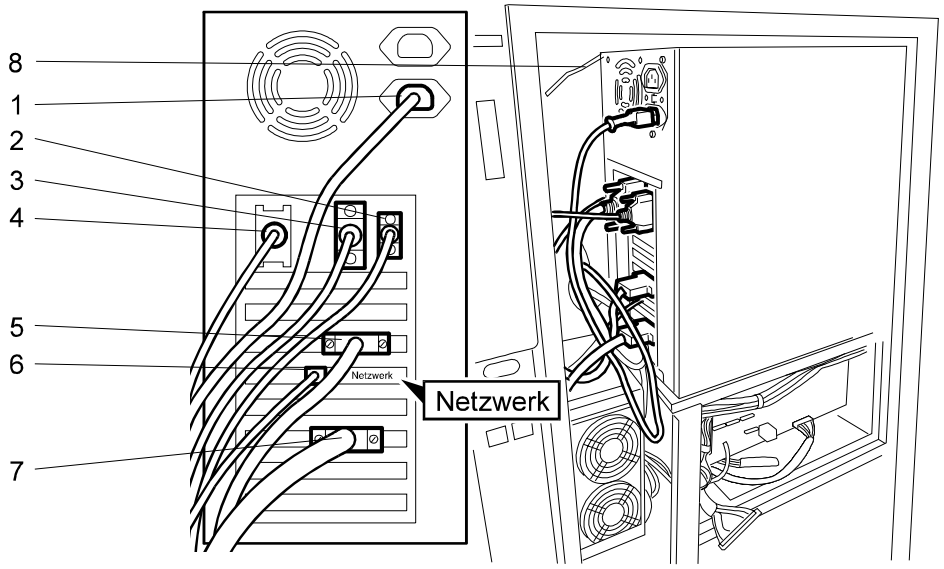


Connection to the MSC 200

- ❑ Run the two cables of the DPU through the opening *(Pos 1)* around the rack up to the EXI board.
- ❑ Connect the two connectors to the EXI board (CN 7 and CN 8). The other slots remain vacant.
- ❑ Make sure that no cables are squeezed when the rack is pushed back in.



Connecting the IP



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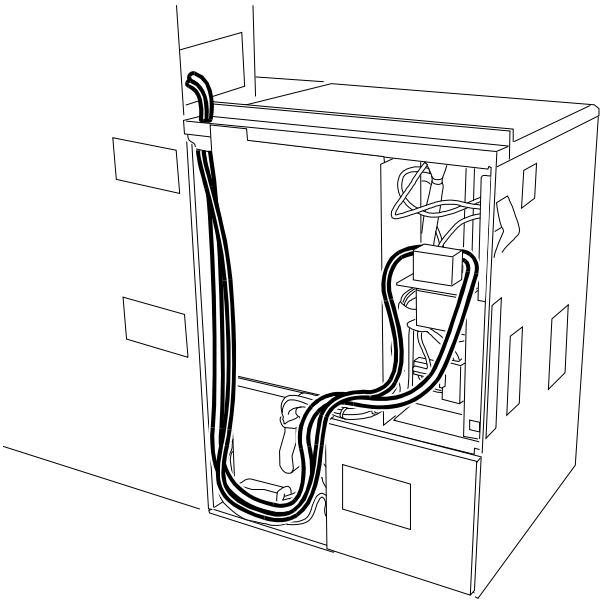
- ❑ Put the IP into the free compartment on the left side of the FOCRT unit
- ❑ Connect the cables shown above to the IP.
- ❑ Take the power cable that is normally used for the screen and connect the other end to the high-voltage output in the DPU.
- ❑ Link the GND connection of the IP with the frame of the DPU.
- ❑ Run the cables to the Agfa computer as shown in the *following figure*.



Final work

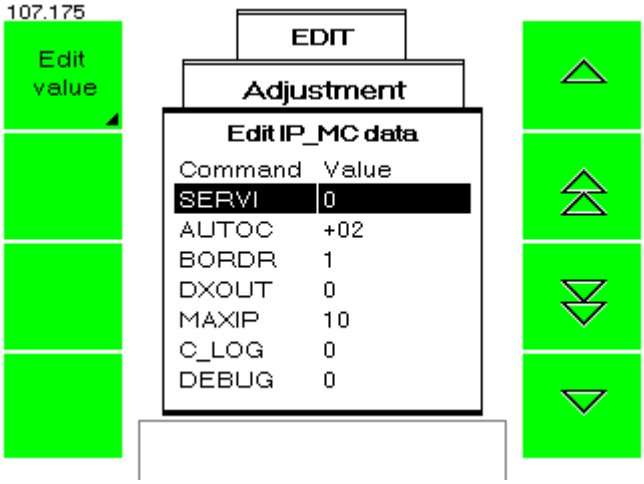
- ❑ Put back all covers of the DPU
- ❑ Mount the scrap box to the DPU at the bottom right.
- ❑ Install the cutter again in the MSC and close the electronic cover.
- ❑ Use the power cable in the IP accessory pack to connect the DPU to the mains socket outlet.
- ❑ *Now go to the chapter After the first switch-on*

After first Switch-on

Operation of the DPU without Index camera

If no Indexprints are to be produced, the camera need not be used. To suppress error messages on the MSC, the missing camera has to be entered in the file **IP_MC.DAT**.

❑ On the MSC, enter in the menu **EDIT/PRINTER/DEFAULT SETTINGS/ ADJUSTMENTS/EDITING IP_MC**



❑ Search the parameter **INDEX** and change the appropriate value from 1 to 0. It is then possible to work without the camera.

Test print for the FRED calibration

FRED means Fiber Optic Registration and Equalisation Device.
This calibration has to be performed to make sure that large surfaces are represented uniformly. The test print is scanned and assessed by a high-speed Scanner in your Service Centrale. The resulting data is used to create a correction file which has to be loaded into the FOCRT.

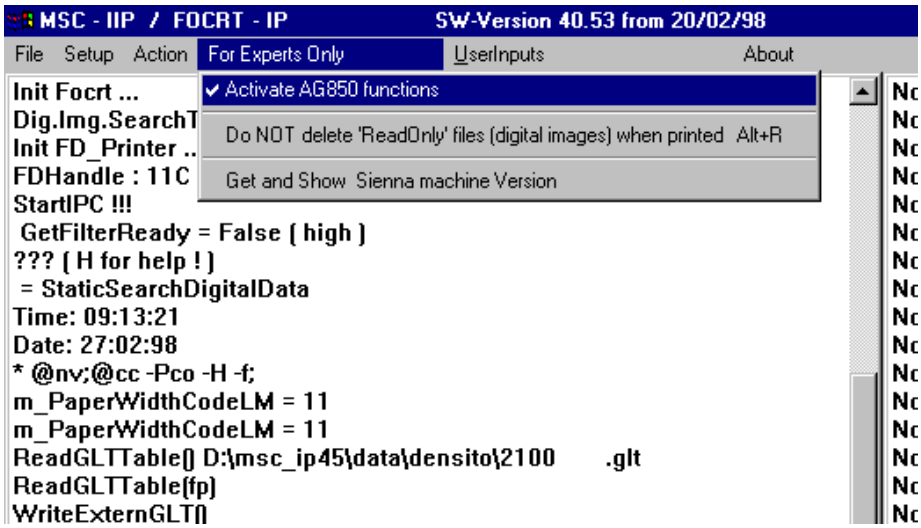
The calibration has to be performed once upon a new installation. A second calibration may be necessary under the following conditions:

- Change of the paper brand.
- Change of the location of the DPU.
- Printing always the same subject (burning effect). In this case, a calibration is recommended every 12 to 18 months.
- Use of a new wider paper after only narrow paper widths have been used.

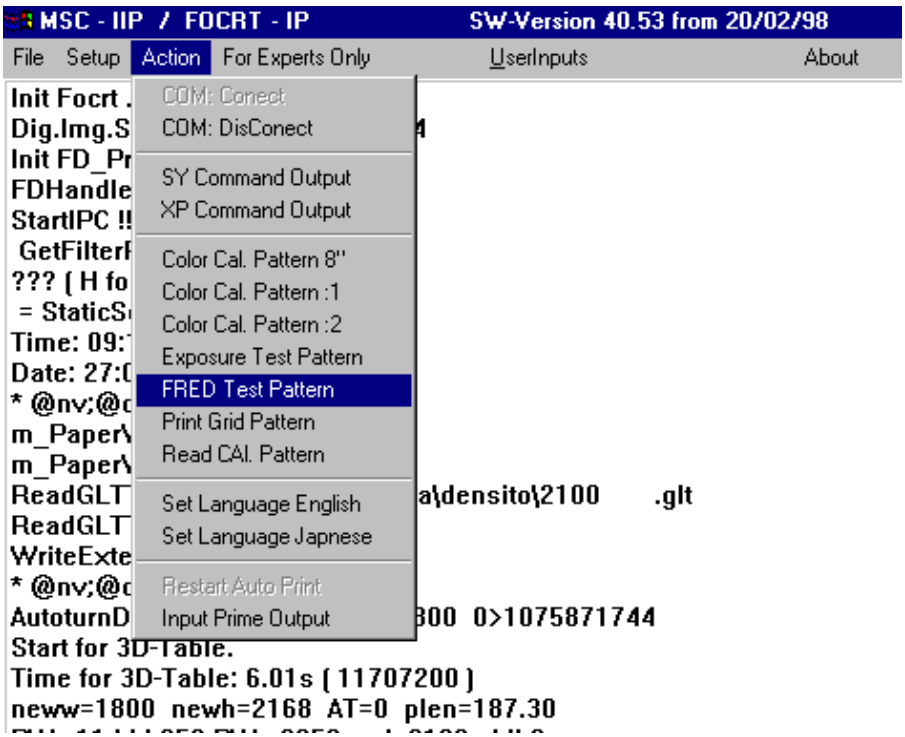
▼ For this, a VGA monitor and a mouse are required that both have to be connected to the IP.

Important Clean the exposure array before starting *(See the chapter Maintenance)*

- ❑ Put on a magazine with 203 or 210 mm wide paper on the left side (DPU). Use at least paper of the largest width.
- ❑ Create a digital channel for this paper and calibrate it *(both operations are described in the chapter Operation).*
- ❑ Leave the MSC in the digital print mode after the calibration.
- ❑ Go to the screen of the IP.
- ❑ The menu bar is at the top right where you can see among others **`For Experts Only`**. Click this point.
- ❑ Three more lines appear. Click on **`Activate AG850 functions`**.



- ❑ Now click **`Action`**
- ❑ Search **`FRED Testpattern`** and click on it.



A test print is exposed and processed. Have a critical eye on the test print. If there are fluctuations on the grey field crosswise to the direction of transport, proceed as follows:

- ❑ Expose another test print
- ❑ Put both prints in a stable envelope and send the latter to the address given below, stating the location of the DPU:

Agfa Gevaert AG
LG-SAT3/ML
Attn. Wolfgang Renner
Tegernseer Landstraße 161
D-81539 München

Note The two test prints must not show finger marks or kinks, otherwise they cannot be assessed.

If desired, the correction file may also be sent via E-Mail.

Loading the correction file into the DPU

After a few days, you will get a diskette with the correction file which has to be loaded into the DPU. For this operation, a keyboard and a monitor are required that are to be connected to the IP.

- ❑ Switch off the IP
- ❑ Put the received diskette in the disk drive of the IP
- ❑ Switch the IP back on. It boots to MS-DOS. If this is not the case, change the boot sequence from C,A to A,C in the BIOS.
- ❑ Then make the entries described in the table below:
  The appropriate messages that appear after each sending of a command are given under Display DPU and screen IP.

Entry	Display DPU	Screen IP
bootjump	**Boot Rom Test Executive Waiting Test**	**fast8 -c bt_jump.cmd Got NOT_BUSY (LPT1 at 0x378**
fm -edbv bXXXXXXy.dlu (bXXXXXXy.dlu is the file that has to be downloaded. XXXXXX is the 6-digit serial number of the FOCRT that should agree with the sticker on the unit)	**Boot Rom Test Executive flash erase in progress**	**Erase of uniformity flash 000... Download... Burning flashes... Verifying...** (The entries can be continued as soon as the current drive of the IP appears again)
test999	**AG850 Warm up Please wait**	**fast8 -c test999.cmd Got NOT_BUSY (LPT1 t 0x378) A:dsc2pc8 TE: [32mOK -- Flash EEPROMS are programmed. [0m**

The DPU is ready to operate again.

Technical Data

Exposure unit (FOCRT)

Pixel resolution	500 dpi
Maximum image resolution	360 dpi
Colour depth	3x8 bit (RGB)
Maximum paper width	220 cm or 8,5“
Sweep time (1 line, 1 colour)	0,35 ms
Host Interface Centronics	0,8 - 1,0 MB/s
Paper transport during the exposure	10 - 12 mm/s
Video tape width	10 MHz
Internal data processing	12 bits/colour
Max. density fluctuation on a print	+/- 0,03 D
Max. density fluctuation from print to print	+/- 0,05 D

Print capacity

160 Prints/h	10 X 15 cm or 6“ X 4“
70 Prints/h	20 X 30 cm or 8“ X 12“

Available paper widths and lengths

Paper width		Available length	
mm	Inch	mm	Inch
82	3 ¼	120 - 305	4 ¾ - 12
89	3 ½	120 - 305	4 ¾ - 12
95	3 ¾	120 - 305	4 ¾ - 12
102	4	120 - 305	4 ¾ - 12
120	4 ¾	89 - 305	3 ½ - 12
127	5	89 - 305	3 ½ - 12
152	6	89 - 305	3 ½ - 12
165	6 ½	89 - 305	3 ½ - 12
178	7	89 - 305	3 ½ - 12
203	8	89 - 305	3 ½ - 12
210	8 ¼	89 - 305	3 ½ - 12

Operating conditions

Room temperature:	+15°C ..+30°C
Relative humidity:	15% - 75%
Noise level:	< 70 dB(A)
EMV:	Class B

Current consumption

The DPU needs 750 W in operation. The power supply unit adjusts itself automatically to the existing voltage within a range of 100 V to 240 V. The connection is single-phase to a normal socket outlet.

Mains voltage	100 V	115 V	120 V	127 V	200 V	220 V	230 V	240 V
Current	7,5 A	6,5 A	6,25 A	5,9 A	3,8 A	3,4 A	3,3 A	3,2 A

Note The Image Processor is not included. The values are as follows:
90 - 140 V max 2A
190 - 264 V max 1 A

Electrical fusing

No special fusing is required for the operation of the DPU.

Weight

DPU	180 Kg
DPU + MSC 100	700 Kg
DPU + MSC 200	1040 Kg

Dimensions

Length: 75 cm
Width: 67 cm
Height: 110 cm

Storage and transport

Temperature range: -30°C ..+60°C
Relative humidity: up to 95%

Prerequisites for the connection of the DPU

The following prerequisites have to be met so that the DPU can be operated together with the MSC:

- IP (Image Processor) type 8508/410 available
- Camera Kit type 8506/313 installed in the MSC
- Software Main V 2.61 or higher installed in the MSC
- 53A-CPU board type 8506/351 (only for MSC 100)
- Densitometer of the MSC: Modify or replace, see the chapter Installation

Note The DPU cannot be connected to an MSC 101!

An LCD system that may be installed has to be removed completely. The original test negative unit is needed again.

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Creating Indexprint sizes 2.10
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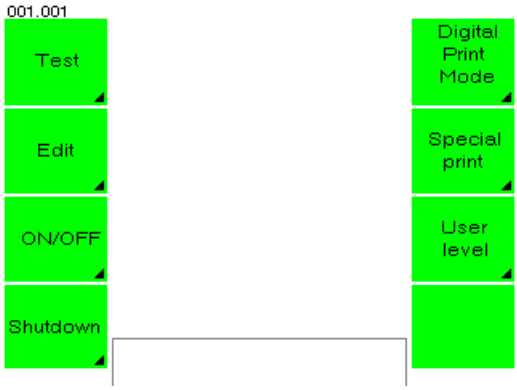
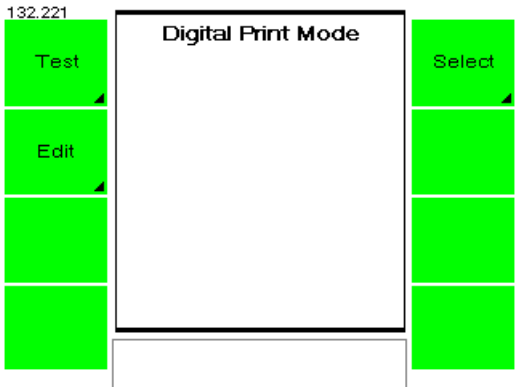
Operation

Creating a digital Print Channel

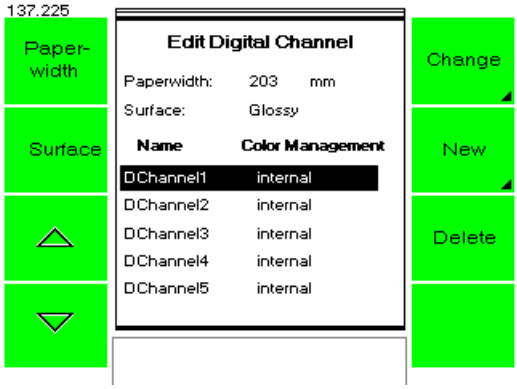
The digital print mode can be reached from the Root menu. Prerequisite is that the DPU has been recognised by the MSC.

❑ Select the key Digital Print Mode



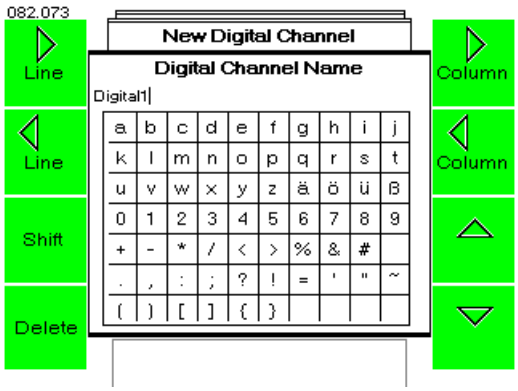


❑ Press Edit to create a digital channel

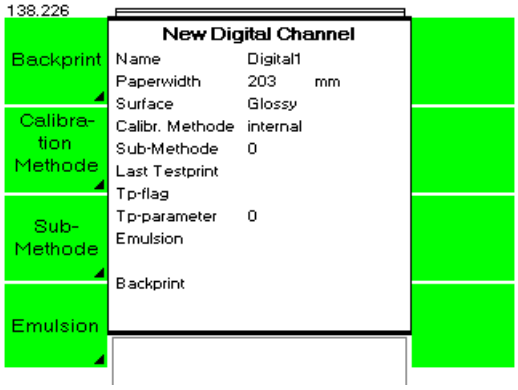


Defining the name of the cannel

❑ Press <New>. A menu is displayed that asks for the entry of the name.



❑ Confirm the entry by pressing <BACK.> The following menu is displayed:



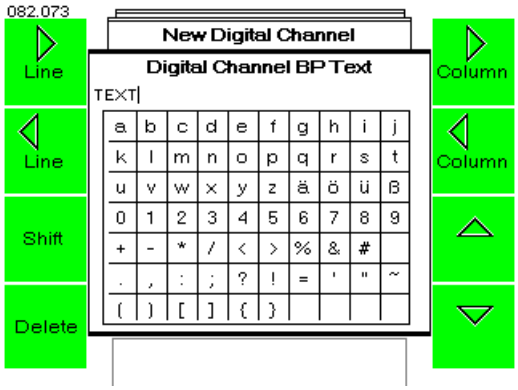
Back printer

The characters entered here are only printed when a transfer program (Workstation -- IP) is used and no data is indicated for the back print in the associated ICF file.

If only a graphic file is copied to the directory DPU of the IP, the back print shows the file name and the current date. No other data can be printed.

❑ Press <Back print>

Up to 40 characters can be printed. The same features can be selected as for the optical channels.



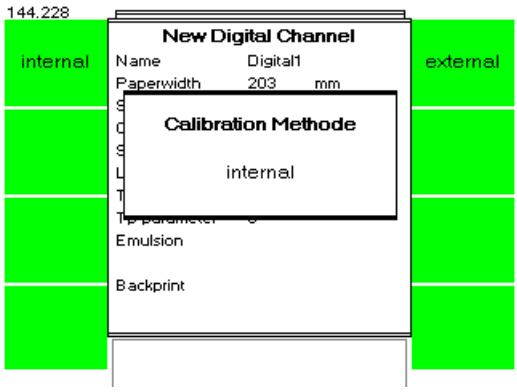
Pressing <Back> will validate the entries. The MSC returns to the previous menu.

Selection of the calibration method

After pressing <Calibration method>, a selection between the internal and the external mode is possible.

We recommend to use the internal method in which the test print is measured automatically by the internal densitometer.

Note For the external method, a special external densitometer is required, i.e. the model X-Rite810. This calibration procedure is very complicated and time-consuming.

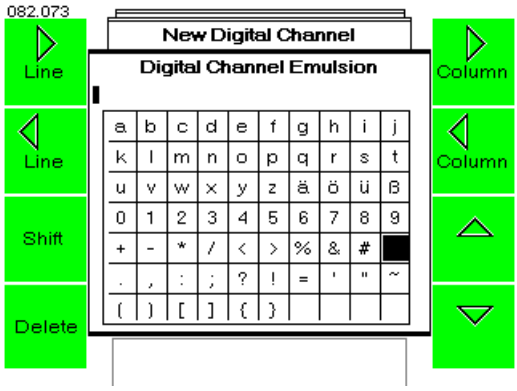


Sub-method

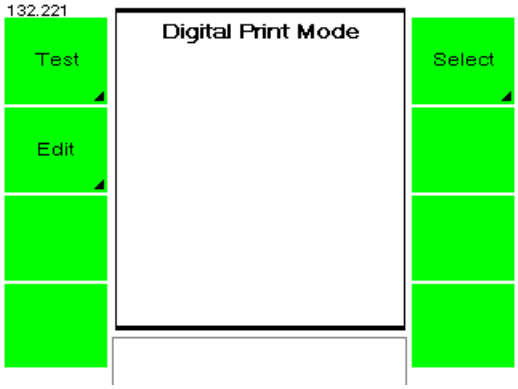
Note The key <Sub-method> has no function yet and is reserved for later applications.

Emulsion

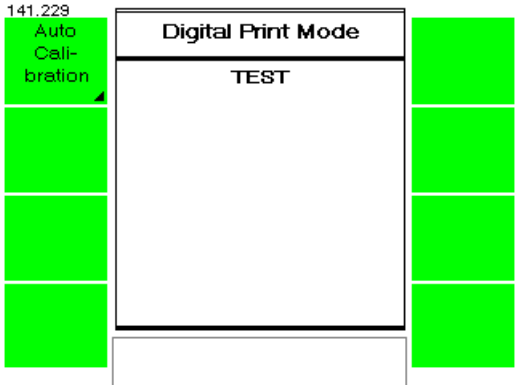
After pressing this key, the emulsion number of the paper in use can be entered. It is output for information when test prints are made.


082.073
New Digital Channel
Digital Channel Emulsion
Line
Line
Shift
Delete
Column
Column
a b c d e f g h i j
k l m n o p q r s t
u v w x y z ä ö ü ß
0 1 2 3 4 5 6 7 8 9
+ - * / < > % & #
. , : ; ? ! = ' " ~
( ) [ ] { }

Calibrating a digital Print Channel



❑ Press Test



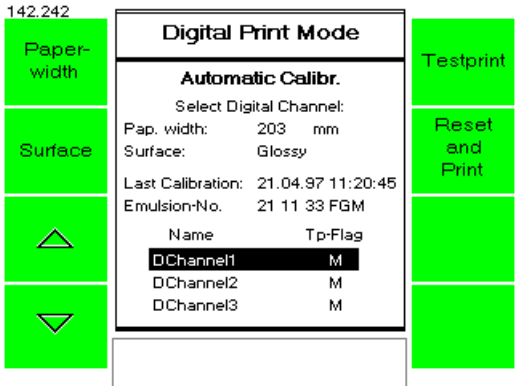
Automatic calibration

After pressing the appropriate key, the menu below is displayed.
We recommend to use only this calibration method.

❑ Select the correct paper width and paper surface.

❑ The digital channels created for this configuration are shown below. Select the channel to be calibrated.

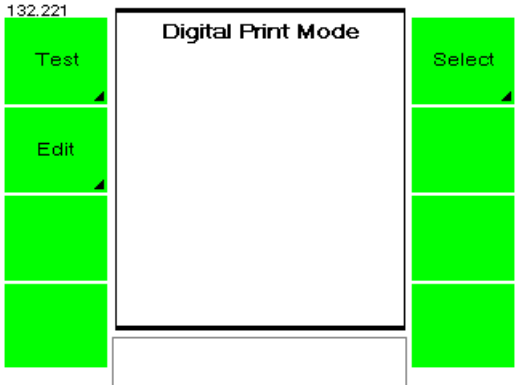
❑ Press Testprint.
A test print is exposed and processed. Then it is measured by the integrated densitometer. The calculation of the correction values is automatic.



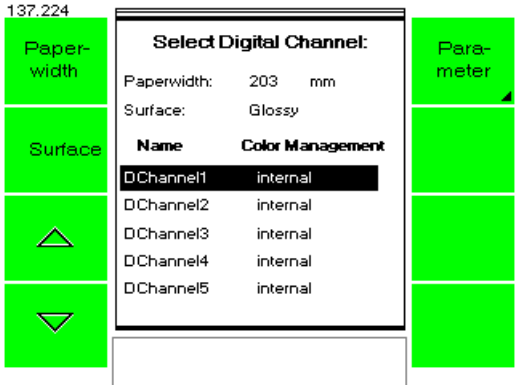
Meaning of the TP Flags:

R Autocalibration running, test print not yet in tolerance.
A Autocalibration finished, test print in tolerance
S Calibration stopped

Selection of a digital Print Channel



- ❑ Press <Select>
- ❑ Select the correct paper width and paper surface.
- ❑ The digital channels created for this configuration are shown below. Select the desired channel.



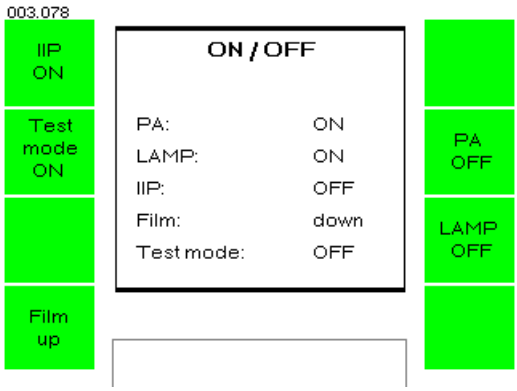
Note The sub-menus of <Parameter> have no function yet. They are reserved for later applications.

Creating Index Channels

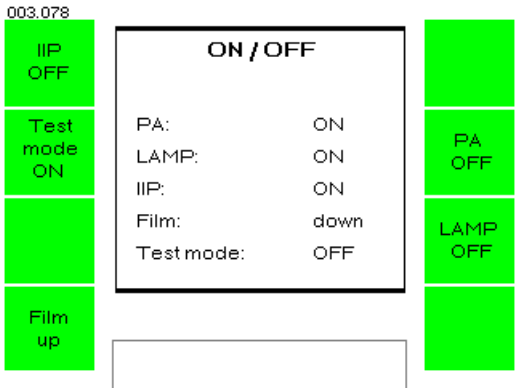
Connection to the Image Processor

To find the <Index> function key described in the following chapters, the communication with the IP has to be switched on first.

❑ Press <Back> to go to the Root menu and then press <ON / OFF>.



❑ Press <IIP ON>



Pressing <BACK> will initiate the Index camera calibration.

Creating Indexprint sizes

First of all, 2 Indexprint channels have to be created for each configuration that have the size of the Indexprints, and other settings have to be specified.

Indexprint size 1
This size is intended for Indexprints from films that meet the following requirements:

– A film of size 135 with less than 28 or 30 frames (depending on the Indexprint size).

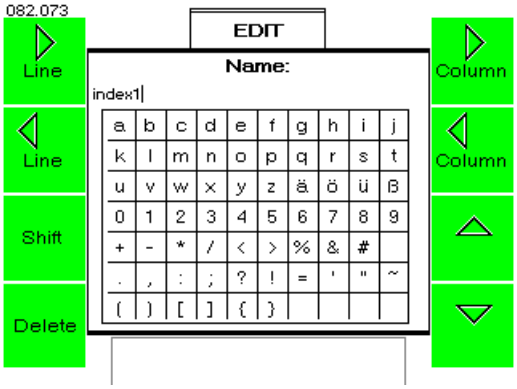
– An APS film with less than 25 frames.

Indexprint size 2
This size is intended for Indexprints from films with more frames than mentioned before. This size requires a separate channel because this Indexprint will get larger.

❑ Go to **EDIT/PRINTER/CONFIGURATION**

❑ Select the paper width to be used for the Indexprints.

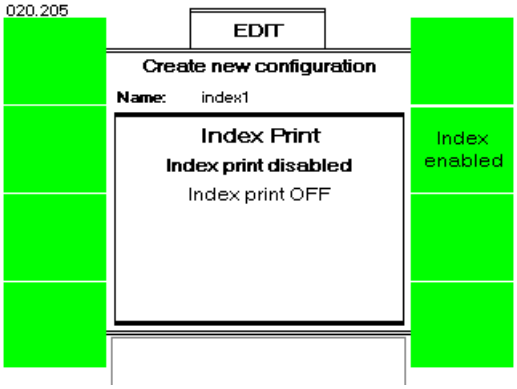
❑ Select **NEW**.
The request comes up to enter a name for the new channel.
Example: index1

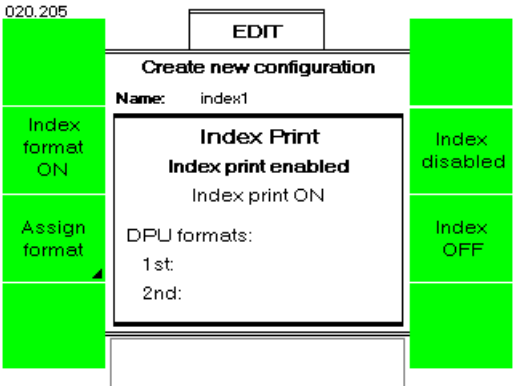


❑ Press <BACK>

❑ Select **INDEX**

❑ First, activate the Index function with the key <Index enabled> and declare this channel to be an Indexprint channel **(INDEXFORMAT ON)**



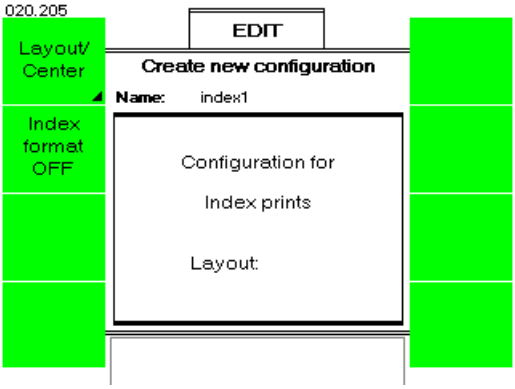


Then specify the Layout (size) of the Indexprint.

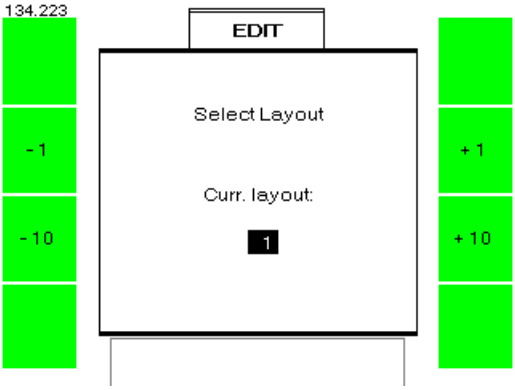
Selecting the Layout

The Layout is responsible for the size of the Indexprint. For APS films, only the small size is possible at present. For film size 135, either a large or a small size can be selected. The large size can only be used with paper widths from 127 mm.

❑ After the newly created channel has been declared to be an Index size, the following menu is displayed:



❑ Enter the Layout number acc. to the table on the next page.



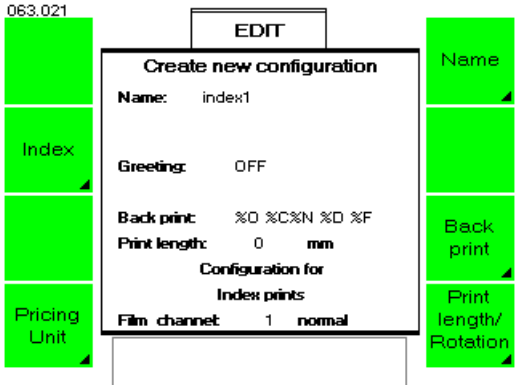
Layout table:

Film size	Layout	**Index format 1**	**Index format 2**	Remark
135	small	**1**	**0**	
135	large	**3**	**2**	Only possible from paper width 127 mm
APS	standard	**5**	**4**	

The numbers to be entered are given under Index format 1 and Index format 2.
Upon this, the print length has to be specified:

Print length

Pressing the <BACK> key twice will bring up the following menu:



❑ Select <Print length>

❑ Enter the print length for this channel acc. to the following table.

– APS size

Paper width	89, 102 mm		≥ 120 mm	
No. of prints	up to 25	26 - 40	up to 25	26 - 40
Index size	1	2	1	2
Cut length	127 mm	182 mm	127 mm	182 mm

Note Only small Indexprints can be produced from APS films.

– Size 135

Here, either the small or the large Indexprint size can be selected. The Layout parameter is used to specify from which paper width the large size is to be used. However, it is not possible to choose paper widths smaller than 127 mm for the large size.

Small size:

Paper width	89 mm		102, 120 mm		≥ 127 mm	
No. of prints	up to 28	29 to 40	up to 28	29 to 40	up to 28	29 - 40
Index size	1	2	1	2	1	2
Cut length	127 mm	170 mm	140 mm	184 mm	102 mm	178 mm

Large size:

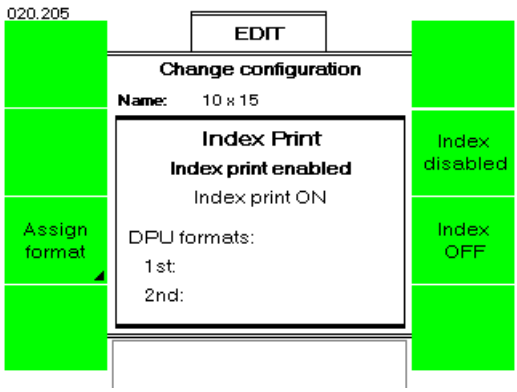
Paper width	127 - 210 mm	
No. of prints	up to 30	31 - 40
Index size	1	2
Cut length	178 mm	200 mm

Note The cut lengths indicated here are only reference values!

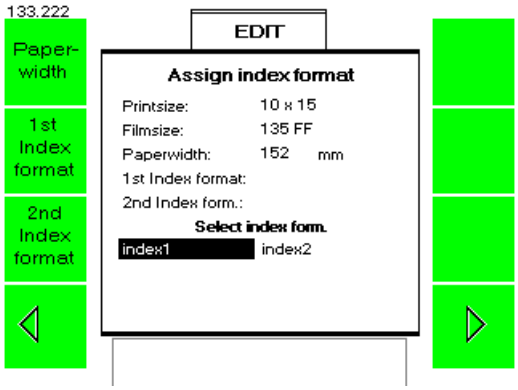
The creation of Indexprint channel 1 is thus terminated. Indexprint channel 2 is created in the same way.

Linking Index channels with the optical print channel

- ❑ Select on the MSC the channel with the configuration that should be used to produce the DPU Indexprints. For film size APS, the Index channels are assigned to the Simple H channel.
  For this, the connection to the Auto channel has to be interrupted and reconnected after the allocation.
- ❑ Call up the menu **EDIT/PRINTER/CONFIGURATION/MODIFY**
- ❑ Select **INDEX**
- ❑ If Index disabled appears, press Index active.
  Display:



- ❑ Select **Assign format**

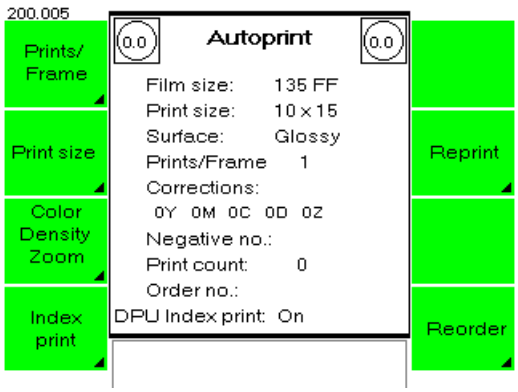


The Index channels just created are offered for selection when the paper width of the optical channel is the same as the one of the Indexprints. Otherwise the paper width has to be selected first for which the Index channels were created.

- ❑ Call Indexprint channel 1 **1st Index format** and Indexprint channel 2 **2nd Index format**

- ❑ Press <BACK> to return to the Root menu.

When an optical channel with a DPU Indexprint function is selected, the following screen should appear.



If not, *proceed to the next chapter*.

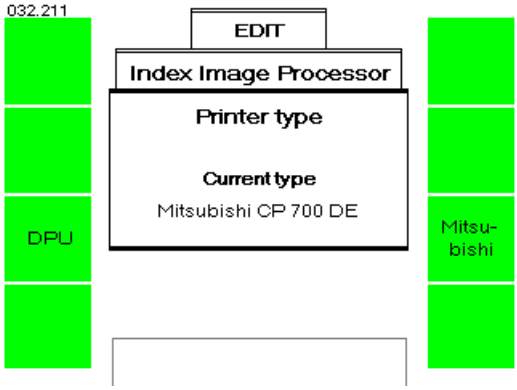
Note The correct selection of the two Indexprint channels is performed automatically by the MSC.

Selection of the DPU as Indexprint printer

If the middle field in the last line does not read **DPU Indexprint**, the correct Indexprint printer has probably not been selected yet.

Note If the MSC is started without DPU by mistake (e.g. main switch of the DPU OFF), the Mitsubishi CP700DE is set again automatically.

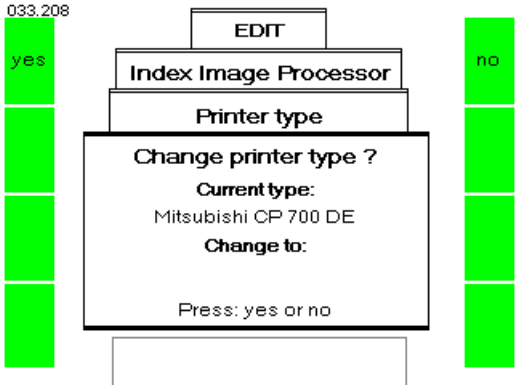
- ❑ Return to the Root menu
- ❑ Press **EDIT/Index Image Processor/Printer type**



Select **DPU** as printer type. Upon this, the program asks whether the printer should be changed. Press <Yes>.

If the DPU does not appear, then this may be due to the following reasons:

- DPU not connected
- DPU not switched on
- DPU not recognised by the MSC (one or several plugs not plugged in)



- ❑ The MSC returns to the menu **EDIT/Index Image Processor**. The change is validated.

Setting and Configuration of the Indexprint Production

Adjustment of the IP Logic / camera optimisation

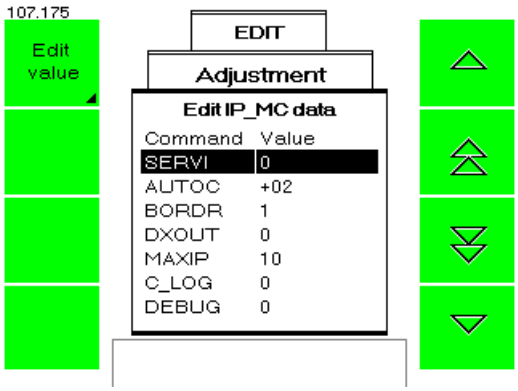
Note It is very important to adjust the IP logic upon a new installation of the IP Software. If this is not done, colour deviations may occur among the different films.

The IP logic need not be adjusted when the Software is updated because existing data records are used.

Five to ten films of different makes are required for the adjustment. Please observe the following when selecting the films:

- The films should include a minimum of problem subjects (no dominants, flash shots, etc..).
- None of the films should consist of mainly overexposed or underexposed frames.
- The films should not be shorter than 40 cm.

❑ On the MSC, call up the menu **EDIT/PRINTER/DEFAULT SETTING/ ADJUSTMENT/EDIT IP_MC**



❑ Set the parameter **AUTOC** to the negative number of films that are available. For example, if you have 10 films, enter <-10>.

❑ Select an Indexprint channel on the MSC and activate **INDEXPRINT ONLY ON**.

❑ Print all films one after the other. As long as the optimisation is not finished, the message **`IIP: Calibration not terminated`** comes up for information. It disappears again when the next film is inserted.

❑ Then set the parameter **AUTOC** back to <1>.

The adjustment is thus terminated and need not be repeated any more.

Setting the general trend

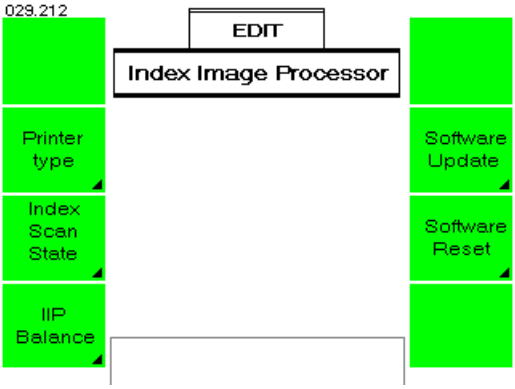
Note Before starting the setting, calibrate the paper that is used for the Indexprints. This is done by creating a digital channel for this paper and starting the calibration procedure *(see the chapters Creating a digital print channel and Calibrating a digital print channel).*

Produce Indexprints from films of different make.
The Indexprints should all show the same trend. If there are deviations with certain film types, go to the *chapter Optimisation of single film types*.

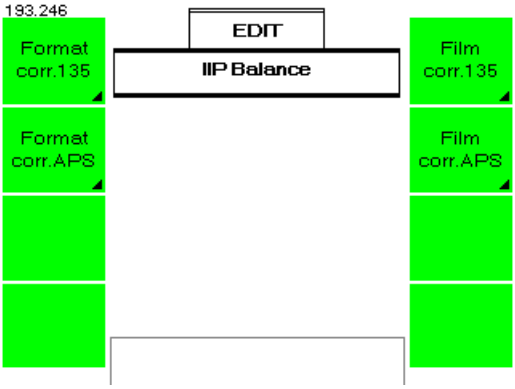
Colour and density corrections

Enter the correction values for colour and density as follows:

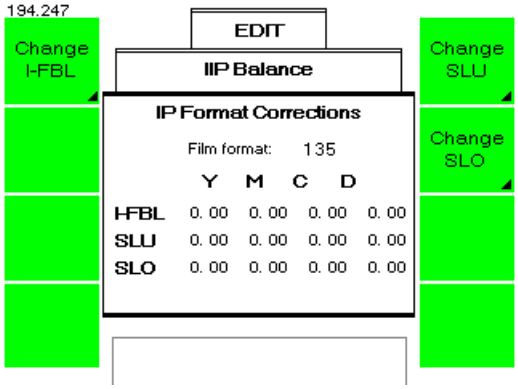
❑ Select **EDIT/INDEX IMAGE PROCESSOR**



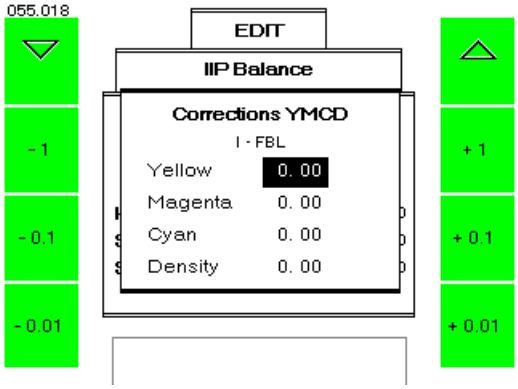
❑ Press **IIP Balance**



❑ For films 135, select **Format correction 135**,
For films APS, select **Format correction APS**.



❑ Make a selection as to whether the corrections should be used for normally exposed frames, or for overexposures or underexposures.



Optimisation of single film types

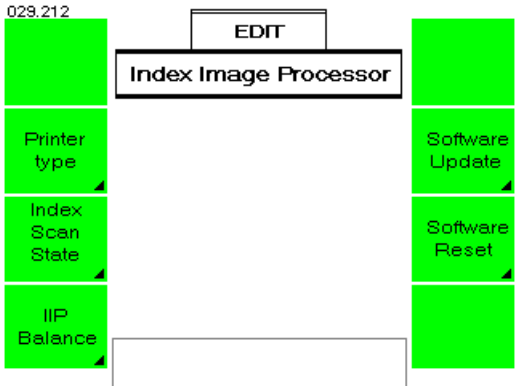
Should deviations occur with isolated film types, special corrections may be performed.

By reducing the cycle counter by 1, for example, a certain film type can be learned again selectively. This procedure should be given preference over the modification of the parameter **AUTOC** in the **IP_MC.DAT** file.

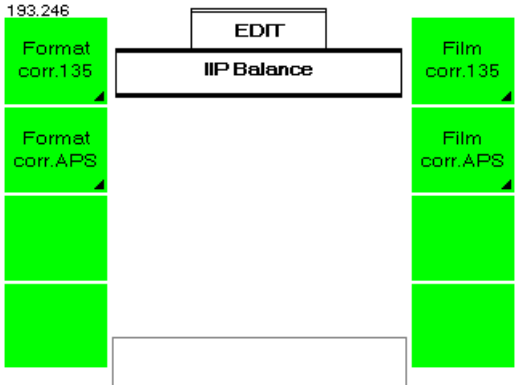
The special corrections for film size 135 are stored in the file **C_DATA.135** and those for APS films, in the file **C_DATA.APS** on the hard disk of the IP. These values may be modified on the MSC.

Always one film type can be corrected. The DX code of the film has to be available as numeric value. The code can be found in the table at the end of the documentation. If it is not possible to identify the DX code clearly, set parameter **DXOUT** to <1>. The code then appears on the Indexprint.

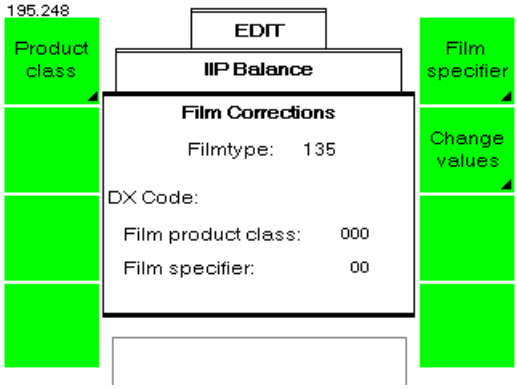
❑ Select on the MSC **EDIT/INDEX IMAGE PROCESSOR**



❑ Press **IIP Balance**

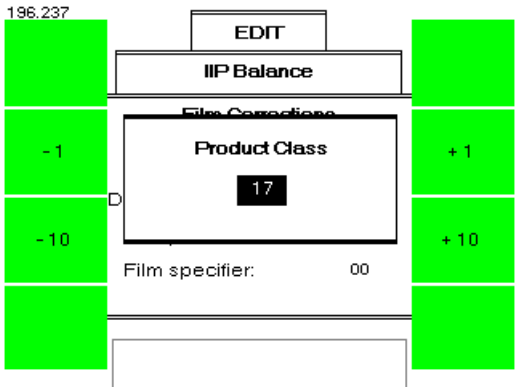


❑ For films 135, select **Film correction 135**,
For APS films, select **Film correction APS**.

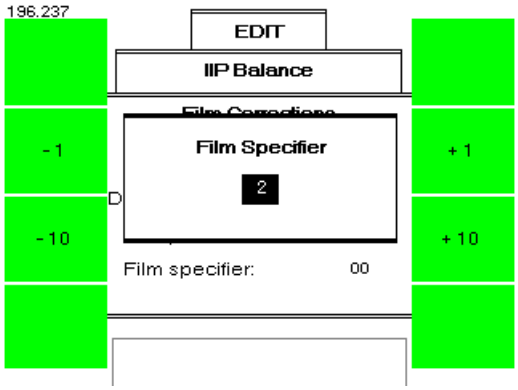


The DX code of a film is always shown in the format 000-00. The first three digit numbers identify the manufacturer, the last two, the film type.

- First select the next **Product class** and enter the number of the manufacturer. A zero at the beginning is omitted.

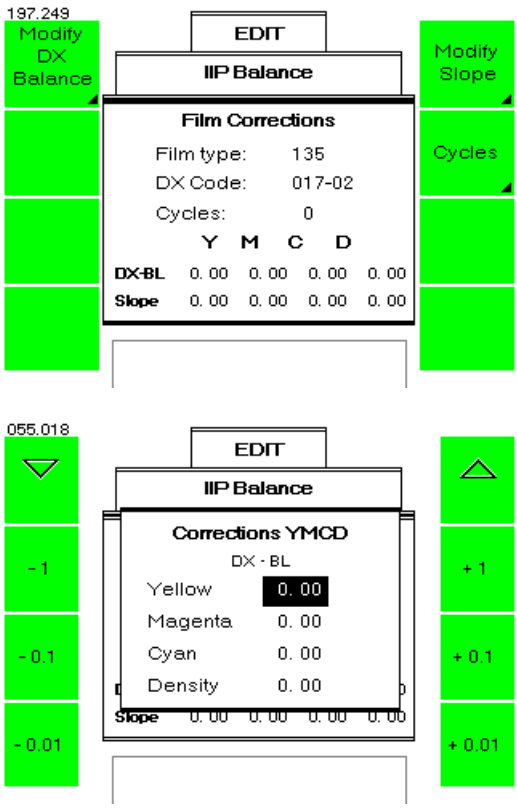


- Then select **Film specifier** and enter the last two digit numbers of the DX code. A zero in the tens can be omitted.



The DX code of the film is displayed and the corrections can be entered.

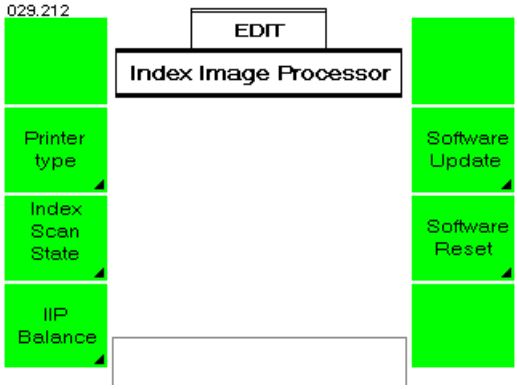
❑ Select the area (normally exposed frames = **Modify DX Balance**, **Modify Slope** or **Cycles**)



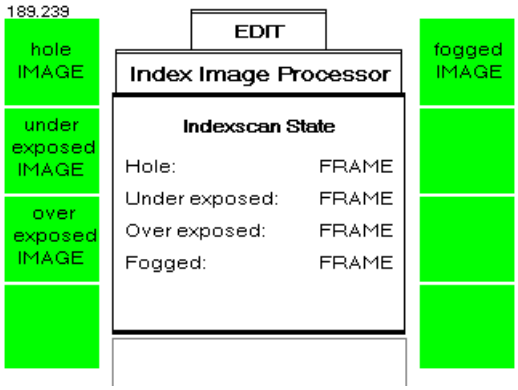
Printing selected frames

It is possible to decide separately for each selection criterion whether the frame should be shown on the Indexprint, or whether a corresponding text should appear instead.

❑ Select **EDIT/INDEX IMAGE PROCESSOR**



❑ Press **Status Indexscan**



If the frame should be shown, select <IMAGE>. If a frame with a corresponding text should appear, <FRAME> has to be set.

Texts for selected frames

The negative numbers of selected frames appear in red. If <FRAME> was selected for a selection criterion, as described in the previous chapter, a brief explanation of the reason why the selector was activated appears in the frame. This text is in English when the machine is delivered. But if desired, another language can be selected.

For this, the file **INDEX.INI** has to be copied to a diskette and edited. The text can be found under *Selection*:

This file (along with some others) is saved on a diskette when a MS-DOS (at least of version 5.0) formatted diskette is put in the disk drive of the IP and then the **SELFTEST IIP** is triggered on the MSC. <TEST> <SELFTEST IIP>.

Note Make absolutely sure that none of these files is on the diskette already. If one or several files of the IP are on the diskette already, they are copied to the hard disk and not vice versa.

```
[Selection]
Selection1 = hole/label
Selection2 = under exposed
Selection3 = over exposed
Selection4 = fogged
```

Note To be able to reproduce language-specific characters correctly, e.g. umlauts, the text should be changed with the country-specific Windows Editor.

Indexprints with frames

If desired, every exposed frame on an Indexprints can be framed. For this, the new parameter **BORDER** in the file **IP_MC.DAT** has to be set to **1**.

Output of the DX code on the Indexprint

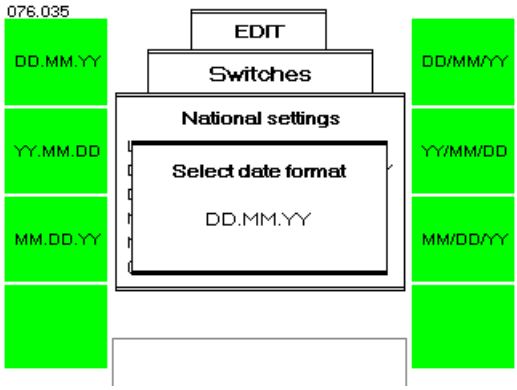
The responsible parameter in the file **IP_MC.DAT** carries the designation **DXOUT**. After the change to **1**, the DX code appears behind the date.

The DX code also appears behind the date for a film type whose learning phase is not finished yet. The learning phase is terminated as soon as the number of **Cycles** corresponds to the number under **AUTOCAL**.

Change of the date format for 135

On Indexprints for films 135, the date of creation in the photolab appears which the IIP receives from the MSC. The date format should therefore be set on the Minilab. Go through the following menus one by one:

- **EDIT**
- **PRINTER**
- **DEFAULT SETTING**
- **SWITCHES**
- **NATIONAL SETTINGS**
- **DATE FORMAT**



Select the desired format here.

Selftest IIP

The following overview shows what happens under which conditions when the function is activated:
Before activating a function, a diskette has to be put in the IIP. The function that is activated depends on the contents of the diskette.

Contents of the diskette	Function
empty (MS-DOS formatted)	The files INDEX.INI, C_DATA.135 and C_DATA.APS are copied to the diskette
Files INDEX.INI, C_DATA.135 and C_DATA.APS	The files are copied to the hard disk of the IIP and are then active. The old files (active before in the IIP) are saved on the diskette as Backup file.
BMP or JPG file	There is no transfer of the files INDEX.INI, C_DATA.135 and C_DATA.APS. The BMP or JPG file is saved in the directory for Logos. Prerequisite: The file carries the correct name!

Modifying Logos

After the production has been set, the Image Processor supplies saleable Indexprints. If desired, the Logos can be modified. In this case, the files involved have to be replaced as appropriate. They are stored on the hard disk of the Image Processor C:\MSC_IP\DATA\BMPS.

Required properties of the graphic files:

- Windows BMP
- 24 Bit colour depth (True Color)
- Size see overview tables

Note Good knowledge of a graphic program is required to do this modification successfully.

Overview

The following overview informs about the Indexprint sizes and the pertaining Logos that are used.

- Format APS

Different graphics are used, depending on the number of frames.

No. of frames	up to 25		from 26 to 40	
Logo	File name	Size	File name	Size
INDEX PHOTO	apsc25i.bmp	520 X 64	apsc40i.bmp	744 X 85
AGFA	apsc25r.bmp	512 X 162	apsc40r.bmp	968 X 218

- Format 135

Here, an additional distinction is made between a small and a large Indexprint size. The large size is selected by means of the Layout number that is specified upon the creation of the auxiliary channels. The smallest paper width for the large size is 127 mm.

Small Indexprint size:

No. of frames	up to 28		from 29 to 40	
Paper width	all *		all *	
Logo	File name	Size	File name	Size
INDEX PHOTO	135c28i.bmp	600 X 140	135c40i.bmp	608 X 128
AGFA	135c28r.bmp	320 X 234	135c40r.bmp	320 X 231

Large Indexprint size:

No. of frames	up to 30		31 - 40	
Paper width	127 - 210 mm		127 - 210 mm	
Logo	File name	Size	File name	Size
INDEX PHOTO	135c28bi.bmp	864 X 151	135c40bi.bmp	1024 X 144
AGFA	135c28br.bmp	304 X 108	135c40br.bmp	456 X 108

Procedure

- ❑ Create the graphic file with the desired Logo.
- ❑ Save the file on an empty diskette. The name and the size of the file should correspond to the data of the tables in the previous chapters.
- ❑ Put the diskette in the disk drive of the Image Processor.
- ❑ Copy the file in the directory C:\MSC_IP\DATA\BMPS. The original file can be renamed before so that it is not overwritten.

Working with the DPU

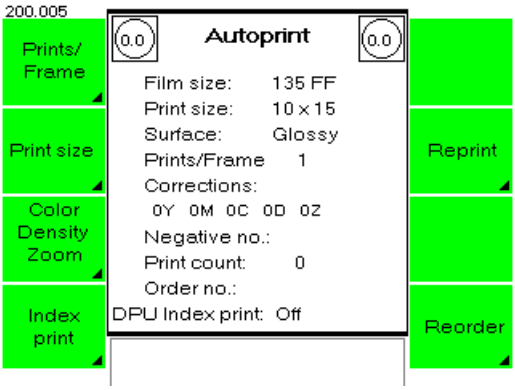
Printing in the digital mode

If there is a file to print in the directory MSC_IP\DPU, the display of the MSC shows the message **Digital mode required**.

- ❑ Keep the Back key depressed until the Root menu is reached.
- ❑ Select the digital mode.

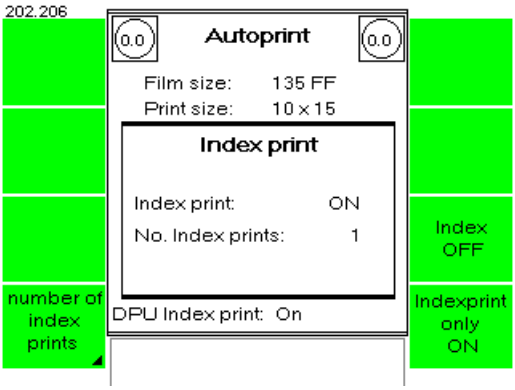
The MSC immediately begins the exposure. The selection of the digital channel is performed automatically when a paper magazine is inserted on the left side.

Switching on the Index Print function on the user level



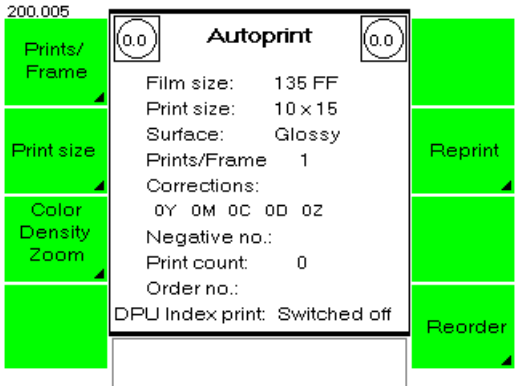
- ❑ Press <Indexprint>

Note: If **<Indexprint>** does not appear, the Indexprint function has to be activated for this configuration. For this, go to the chapter **Creating Index channels.**



Pressing <Index ON> will activate the function.

If the following display appears,



The communication MSC - IP has to be switched on first. Go to the chapter **Connection to the Image Processor**.

Producing Indexprints

▼ Before the film is inserted, the following points have to be checked:

1. Is the Image Processor correctly connected to the MSC (see Installation)?
2. Is the Image Processor ON?
3. Is the communication between the MSC and the IP ON? **(Menu ON / OFF)**
4. The **Indexprint** function has to be authorised for the desired configuration channel and should have been activated *(see Presettings)*.
5. Indexprints can only be produced in the Autoprint mode. The Reprint mode is not selectable as long as the Indexprint function is active.

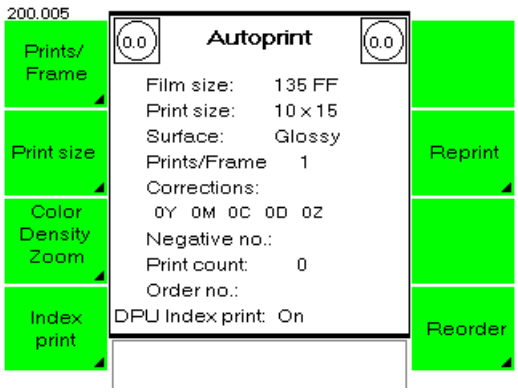
Note: The last line of the screen should read: **`DPU Indexprint ON`**

❑ Put the film in the negative carrier.

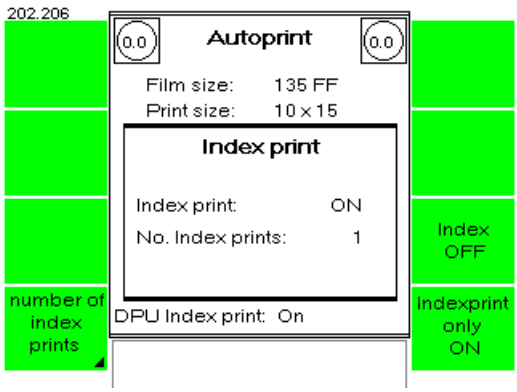
The film is scanned and the Index camera takes a picture of every printable frame. The Indexprint is produced as soon as the film has left the negative carrier.

Several Indexprints per order

The number of Indexprints to be produced per order can be selected as follows:



❑ Press <Indexprint>



- ❑ Press Number of Indexprints. Select the desired quantity and confirm the entry by pressing <BACK>.

Indexprints from film strips

In the Autoprint mode, an Indexprint can be produced from several film strips. The parameter **STRIP** in the file **IP_MC.DAT** specifies how many frames are shown at max. on the Indexprint. The maximum value is <40>.

- ❑ Select the **Autoprint mode** on the MSC
- ❑ Activate the function **INDEX** or **INDEX ONLY**.
- ❑ Handle the strips one after the other. It is advisable to insert the strip always in the same direction, e.g. always with the smallest frame number first, otherwise some strips are shown up side down.

The Indexprint of the taken strips is created under the following conditions:

- End of order triggered
- Number of frames reached that are set with parameter **STRIP**.
  Example (Parameter STRIP set to 40):
  38 frames have been taken already for an Indexprint. If a strip of 4 frames is inserted, it is scanned and buffered on the right side. The Indexprint is created. The frames of the strip inserted last appear on the next Indexprint.
- Film inserted after the strips. (The film still belongs to the same order).

DX Table

Size 135

DX-CODE	Manufacturer	Type
[002-00]	KONICA	100
[002-01]	KONICA	SR100
[002-02]	KONICA	SR-V100
[002-03]	KONICA	SR-V100 / D200
[002-04]	KONICA	200
[002-05]	KONICA	SR200
[002-06]	KONICA	SRV200
[002-07]	KONICA	GX100
[002-08]	KONICA	SR400
[002-09]	KONICA	SRV400
[002-10]	KONICA	SR1600
[002-11]	KONICA	SR-V3200
[002-12]	KONICA	GX100
[002-13]	KONICA	SRG100
[002-14]	KONICA	GX-M100
[002-15]	KONICA	GX400
[008-00]	FUJI	SHR1600
[008-02]	FUJI	SHR400
[008-03]	FUJI	SHR200
[008-04]	FUJI	SHR100
[008-05]	FUJI	Superia 100+D62 / SHR100
[008-06]	FUJI	NSP160
[008-08]	FUJI	HR1600
[008-10]	FUJI	HR400
[008-11]	FUJI	HR200
[008-12]	FUJI	HR100
[008-13]	FUJI	Superia S200
[009-01]	INFACOLOR	SR
[010-02]	FUJI	SHG-400 II
[010-03]	FUJI	SHG-200 II
[010-04]	FUJI	SHR-100 II
[010-08]	FUJI	HG1600
[010-09]	FUJI	NHG 400
[010-10]	FUJI	HG400
[010-11]	FUJI	HG200
[010-13]	FUJI	HG100
[010-14]	FUJI	REALA
[010-15]	FUJI	100
[012-02]	FUJI	G-400
[012-03]	FUJI	G-200
[012-04]	FUJI	G-100 (CN4)
[012-06]	FUJI	NPS 160
[012-09]	FUJI	G-800
[012-10]	FUJI	G-400
[012-12]	FUJI	G-100
[017-00]	AGFA	XR 100-i
[017-01]	AGFA	XRG 100
[017-02]	AGFA	XRG 100 /Optima 125 Prof / Portrait 160 Prof
[017-03]	AGFA	ULTRA 50 / XRG 200
[017-04]	AGFA	OPTIMA 200 / XRG 200
[017-05]	AGFA	OPTIMA 200 / XRG 200

[017-06]	AGFA	HDC 200
[017-07]	AGFA	XRG 400
[017-08]	AGFA	HDC 400
[017-10]	AGFA	XRS 1000
[017-11]	AGFA	HDC 200
[017-12]	AGFA	HDC 100
[017-13]	AGFA	XRG 200
[018-01]	SCOTCH	CP 100
[018-07]	SCOTCH	CP 200
[018-09]	SCOTCH	CP 200
[036-02]	FUJI	G - 400 / Superia 400
[036-03]	FUJI	G - 200
[036-04]	FUJI	G - 100
[036-05]	FUJI	Superia 800
[036-07]	FUJI	Reala 100
[036-09]	FUJI	
[036-10]	FUJI	G 400 CH-4 V86
[036-14]	FUJI	
[036-15]	FUJI	V100 (CN-8)
[040-00]	KONICA	D100 / HD2-100 / Super-SR100
[040-01]	KONICA	SUPER-XG100 / Porst
[040-02]	KONICA	SUPER-XG100
[040-03]	KONICA	IMPRESA-50 / Super SR 100
[040-04]	KONICA	SR-G160
[040-07]	POLAROID	HDR-400
[040-09]	POLAROID	HDR-200
[040-10]	KONICA	SR-G200
[040-11]	POLAROID	HD2-200
[040-12]	KONICA	GX 100M
[040-13]	KONICA	SUPER-SR200P / D200
[049-00]	AGFA	XR 200
[049-02]	AGFA	PORTAIT XPS 160
[049-05]	AGFA	OPTIMA 200 Prof
[049-07]	AGFA	OPTIMA 400 Prof
[049-08]	AGFA	OPTIMA 400 Prof
[049-09]	AGFA	OPTIMA 400-2
[049-11]	AGFA	OPTIMA 200 Prof
[049-12]	AGFA	OPTIMA 100 Prof
[050-02]	KONICA	VX400
[050-03]	KONICA	VX100
[050-04]	KONICA	VX200
[050-06]	KONICA	JX100
[050-07]	KONICA	JX400+C101 / Sepia 400 (J)
[050-08]	KONICA	VX-PAN 400
[066-06]	SCOTCH/3M	EXL 100
[066-10]	SCOTCH/3M	400
[066-11]	SCOTCH/3M	200 C
[078-01]	KODAK	GOLD 100-6
[078-02]	KODAK	GOLD 200-6
[078-03]	KODAK	GOLD 400-6
[078-04]	KODAK	RA 100-2
[078-05]	KODAK	RB 200-6
[078-06]	KODAK	400-2 RC
[078-07]	KODAK	GOLD 800-2
[078-08]	KODAK	PJM2
[079-01]	KODAK	VR100+ / DA-5
[079-02]	KODAK	Color 200

[081-01]	KODAK	EXTAR 25-1
[081-02]	KODAK	EXTAR 125-1
[081-03]	KODAK	EXTAR 1000-1
[081-06]	KODAK	5327-PHR
[081-07]	KODAK	GOLD 400-2
[081-08]	KODAK	GOLD 200
[081-09]	KODAK	GOLD 1600
[081-10]	KODAK	GOLD 100
[081-11]	KODAK	EXTAR 100-2
[081-13]	KODAK	EKTAPRESS 400
[082-01]	KODAK	VR200
[082-02]	KODAK	VR100-2
[082-03]	KODAK	GOLD 400-3
[082-04]	KODAK	VR100/3
[082-05]	KODAK	VR200/3
[082-06]	KODAK	GOLD 100-3
[082-07]	KODAK	GOLD 200-3
[082-08]	KODAK	Outdoor 100
[082-09]	KODAK	EktocolorBP 160
[082-10]	KODAK	GOLD 400-4
[082-11]	KODAK	AC100-3
[082-13]	KODAK	VR200-4
[082-14]	KODAK	VR 100-4
[083-02]	KODAK	EXTAR 1000-2 (RF 1000)
[083-04]	KODAK	GOLD 100-4
[083-05]	KODAK	GOLD 200-4
[083-06]	KODAK	GOLD 400-5
[083-08]	KODAK	EXTAR 100-3
[083-09]	KODAK	Funtime 100
[083-10]	KODAK	EXTAR 400
[083-11]	KODAK	EXTAR 200
[083-12]	KODAK	GOLD 100-5
[083-13]	KODAK	GOLD 200-5
[112-01]	KODAK	5026-VPS
[112-04]	KODAK	Ektacolor G 160
[112-06]	KODAK	Ektacolor G 400
[112-07]	KODAK	Gold 160
[112-12]	KODAK	Pro Gold 160
[113-00]	AGFA	XRS 400
[113-09]	AGFA	HDC 400-2 / HDC 200-2
[115-00]	AGFA	XRS 1000
[115-06]	PERUTZ	SC 200 Color
[115-08]	PERUTZ	SC 400 Color
[115-12]	PERUTZ	SC 200 Color
[121-00]	ORWO	CNG 200
[121-05]	ORWO	CNG 400
[122-00]	ORWO	QRS 100
[127-15]	KODAK	VR100-4

Size APS

DX-CODE	Manufacturer	Type
[033-02]	FUJI	NEXIA 400 Hi-speed
[033-03]	FUJI	NEXIA 200 / 100
[033-04]	FUJI	200 / 100F /DS-2
[033-07]	FUJI	NEXIA 100 Daylight
[033-10]	FUJI	400
[033-11]	FUJI	NEXIA A 200
[042-01]	FUJI	NEXIA DA 200
[042-01]	FUJI	200 DA-2
[044-01]	AGFA	FUTURA 100
[044-02]	AGFA	FUTURA 200
[044-04]	AGFA	FUTURA 200
[044-09]	AGFA	FUTURA 400
[072-00]	KONICA	JX 400
[072-01]	KONICA	JX 200
[091-01]	KODAK	ADVANTiX 100
[091-02]	KODAK	ADVANTiX 200
[091-03]	KODAK	ADVANTiX 400
[091-09]	KODAK	ADVANTiX 400

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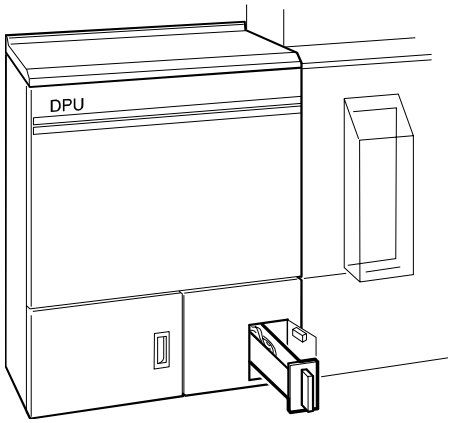
Maintenance

Maintenance Schedule

daily	weekly	monthly	Technician's service call required	Jobs to be performed
X				Clean faceplate (exposure array); several times if required!
X				Clean FOCRT unit drive rollers
X				Empty paper scrap box
		X		Clean air filter
			X	Change tape spacer (every 250000 Prints)
			X	Clean paper transport rollers
			X	Clean light sensors

Emptying the paper scrap box

The scrap box has to be emptied every day or when the error message **`DPU Scrap box full`** appears. Open the door at the bottom right to get access to the box. It can then be pulled out easily.

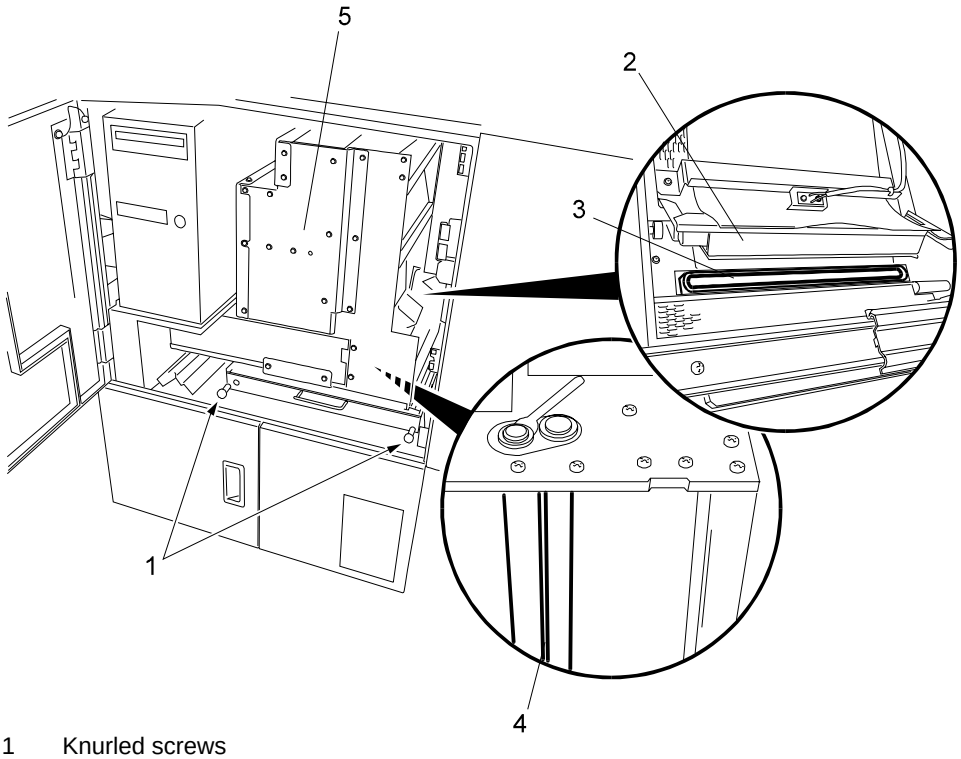


Cleaning the faceplate (exposure array) and FOCRT unit drive rollers

Clean the faceplate at least once a day. If the machine is used very much, it is recommended to clean it every 300 prints. It should be cleaned in addition when the paper width is changed.

Please use only lens cleaning cloths. They are included in the IP accessory pack. Cleaning cloths can be reordered under the P/N CM+ 7.0362.6058.0

Fault:
When the faceplate is dirty, the prints show light stripes in the direction of paper transport that may even be scorched.



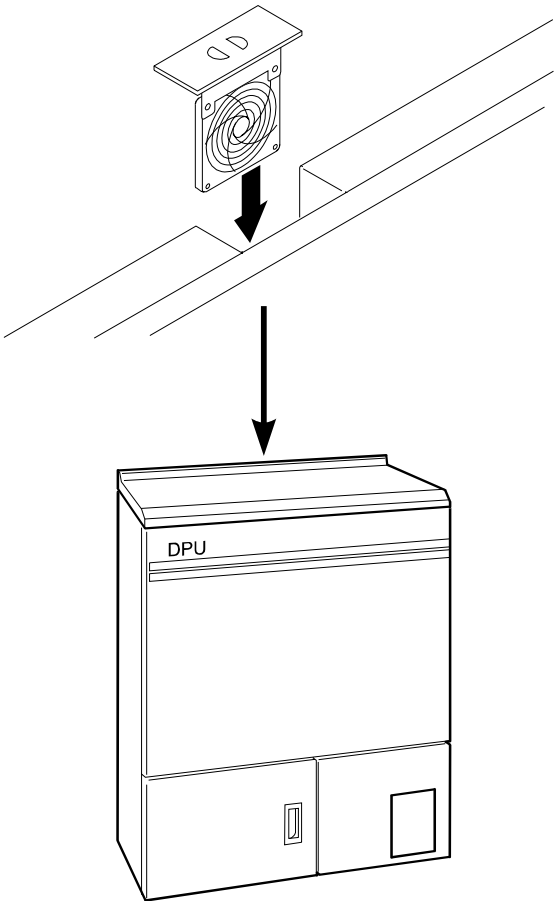
1 Knurled screws
2 Paper pressure unit
3 Faceplate
4 Transport rollers (the magnification shows a bottom view)
5 FOCRT unit

- ❑ Open the knurled screws shown in figure 1 and unscrew them completely.
- ❑ Pull out the FOCRT unit up to the stop *(Pos 5)*, holding it by the handle. The power supply of the DPU must be switched off. The MSC shows the message: **DPU powerless**
- ❑ Clean the faceplate *(Pos 3)* with optical cleaning cloths. To have better access to the faceplate, push up the paper pressure unit *(Pos 2)* against the spring force.
- ❑ The same cloth may be used to clean the transport rollers *(Pos 4)*.
- ❑ Push the FOCRT unit back into the DPU. Press <CLEAR> on the display of the MSC. Then the DPU switches on again.

Note Do not use dusters!

Cleaning the air filter

Clean the air filter in warm water and dry it (not in direct sunlight) before putting it back.



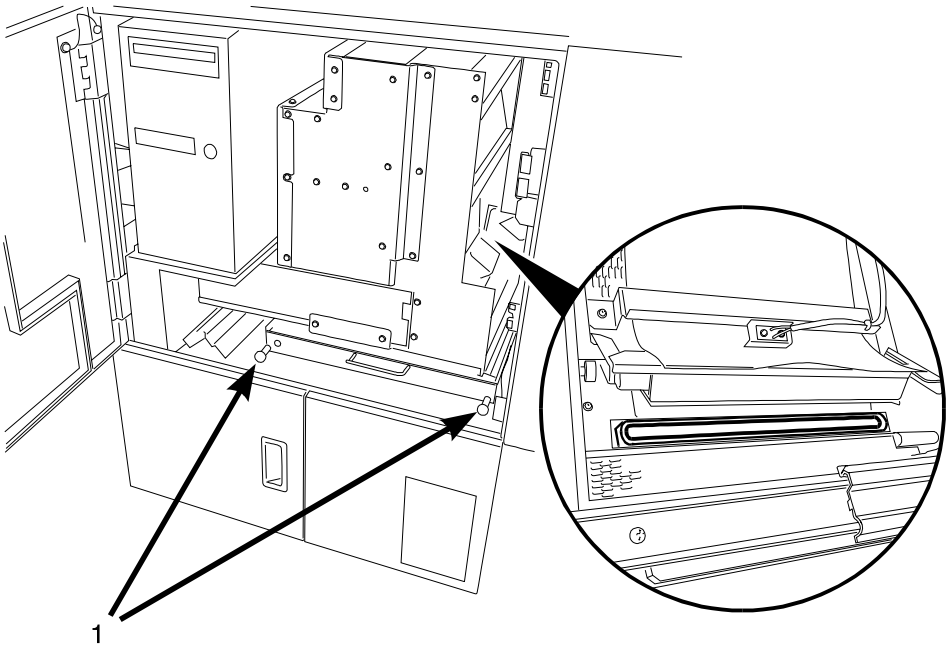
Changing the tape spacer

Note The tape spacer should only be changed by a trained technician.

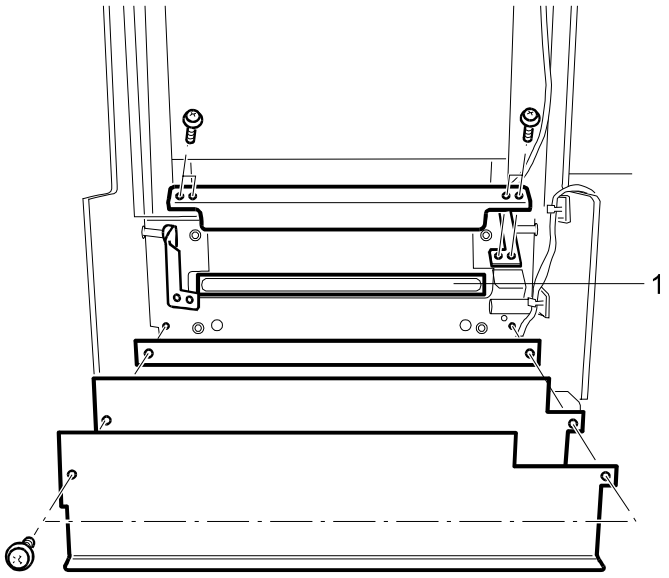
The paper should not touch the faceplate during the exposure. In order to ensure a defined distance, a so-called tape spacer should be put on the faceplate. It resembles very much an adhesive tape.

The tape spacer should be changed every 250,000 prints. The display of the DPU shows a message when to change the tape spacer. The message may be skipped by pressing the key <4>.

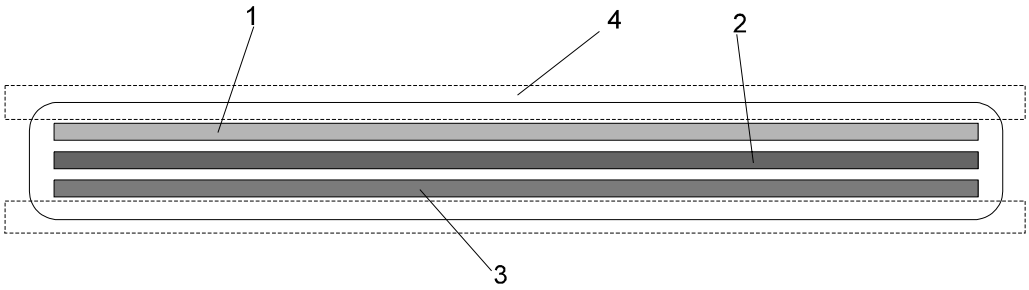
The tape spacer can be ordered under P/N CM+9.999.1081.0



- ❑ Open the knurled screws shown in figure 1 and unscrew them completely.
- ❑ Pull out the FOCRT unit up to the stop, holding it by the handle.
- ❑ Dismount the guide plates in front of the faceplate shown in the figure below *(Pos 1)*



❑ Strip off the two tape spacers *(Pos 4)*.



1 Cyan array
2 Magenta array
3 Yellow array
4 Tape spacer

❑ Clean the faceplate (remove residues if any)

❑ Pull an approx. 230 mm long piece off the roll, making sure that the tape does not get into contact with dirt.

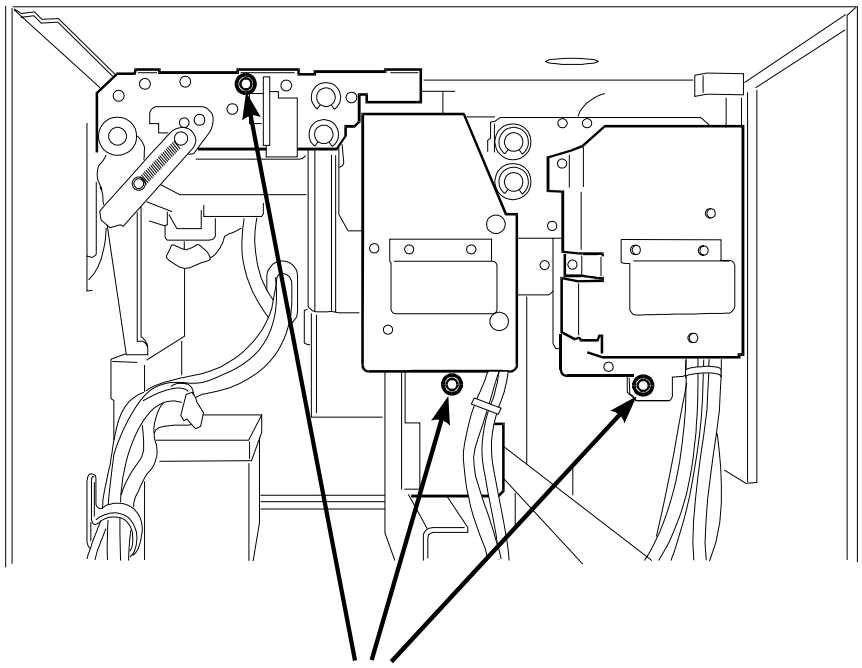
❑ Starting on one side, stick on the tape uniformly and straight, directly above the cyan array (Pos 1). Use the cyan array as reference. Press on the tape with your finger to prevent air inclusions.

❑ Put excessive tape around the edge of the faceplate towards the back, avoiding creases as far as possible.

❑ If creases or blisters cannot be removed, remove the tape and try again!

❑ Do the same thing with the bottom tape.

Cleaning the paper transport rollers



The arrows point to the screws fastening the three transport modules.

Caution

Dismount the LH unit with care. The guides are less than one centimetre long. For this reason, support the unit from below when dismounting it.

■

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Error Messages on the MSC Display

Message	Shortcut	Cause	Remedy
DPU paper jam in engine	TRAN 01 TRAN 04	4 seconds after the start of the motors MO1DPD and MO3AMD, the paper has not yet been seen by LS1DEN (transport out of the magazine) or LS1DTR (transport into the magazine) Paper jam LS1DTR/LS1DEN defective MO1DPD/MO3AMD defective	Check the paper magazine Check/replace LS1DTR/LS1DEN Check/replace MO1DPD/MO3AMD
DPU paper jam in buffer	TRAN 02 TRAN 05	4 seconds after the start of the motors MO1DPD and MO3AMD the paper has not yet been seen by LS1DTR. The transport tries to rewind the paper into the magazine Paper jam in the magazine LS1DTR defective MO1DPD/MO3AMD defective	Check the paper magazine Check/replace LS1DTR Check/replace MO1DPD/MO3AMD
DPU paper jam in feed section	TRAN 03 TRAN 06	4 seconds after the start of the motors MO1DPD and MO3AMD the paper has not yet been seen by LS1DCT, LS3APC and LS5AVC. When the paper is rewound, it has not left the sensor LS1DTR in time Paper jam LS1DCT, LS3APC, LS5AVC or LS1DTR defective MO1DPD/MO3AMD defective	Remove the paper jam Check/replace LS1DCT, LS3APC, LS5AVC in case of a faulty transport out of the magazine Check/replace LS1DTR if faults occur upon rewinding Check/replace MO1DPD/MO3AMD
DPU turn roller malfunction	TURN 01 TURN 03	2,5 seconds after the start of the motor MO1DTR the sensors LS3DTR and LS4DTR have not seen any change of position of the turn roller unit. LS3DTR/LS4DTR defective MO1DTR defective	Check/replace LS3DTR/LS4DTR Check/replace MO1DTR
DPU turn roller nip malfunction	TURN 02 TURN 04	2 seconds after the start of the motor MO2DTR the sensor LS5DTR has not been triggered LS5DTR defective MO2DTR defective	Check/replace LS5DTR Check/replace MO2DTR
DPU turn guide malfunction	TGAD 01	2,5 seconds after the start of the motor MO1DTG the sensor LS1DPG has not seen any change of position of the turn roller unit. LS1DPG defective MO1DPG defective	Check/replace LS1DPG Check/replace MO1DPG

DPU paper width guide malfunction	ATWG 01	6 seconds after the start of the motor MO1DPG the sensor LS2DPG has not been triggered. The paper guide has not reached the required width. LS2DPG defective MO1DPG defective The slide bearings are jammed on the shafts	Check/replace LS2DPG Check/replace MO1DPG Make the slide bearings smooth
DPU slug cutter malfunction	DCUT 01 DCUT 02	2 seconds after the start of the motor MO1DCT the initial position of the cutter has not been seen by LS2DCT LS2DCT defective MO1DPG defective	Check/replace LS2DPG Check/replace MO1DPG
DPU engine nip malfunction	ENIP 01 ENIP 02	2 seconds after the start of the pressure motor MO1DEN the sensors LS2DEN and LS3DEN have not been triggered LS2DEN/LS3DEN defective MO1DEN defective	Check/replace LS2DCT Check/replace MO1DPG
DPU slug box not set	SBOX 01	The slug box is not seen by the sensor LS1DPD. - Not mounted LS1DPD defective	Box in place (locked in properly?) Check/replace LS1DPD
DPU slug box full	SBOX 02	This error message does not exist any more from the official Software version 2.64 (MSC).	Normal Updating is not possible. Either return to the last official version with Reset Update (do not forget the Download of the single processors!), or ask LG-SAT/ML for a Patch Update Software (should be performed by a technician). Important: Prior to the Update, it must be checked whether the DPU is of the current version (top sensor in FOCRT unit).
DPU Check Slug Box	SBOX 03	This message appears after every start of the MSC (only when the DPU is recognised) or when the DPU is switched back on, e.g. after cleaning the face plate.	Pull out the slug box and put it in again --> The message disappears
DPU power off	CRPW 01	Upon start-up, the MSC recognises the DPU, but it is not energised. Power supply of the DPU interrupted during operation. MS1DMB operated --> FOCRT not in the right position. Main switch of the DPU OFF Fuse CP1 of the DPU blown Power supply unit of the DPU defective	Switch on the main switch Check the mains voltage Operate CP1 Move the FOCRT in the right position and screw it on Check/replace MS1DMB Check/replace the power supply unit After removing the cause, press CLEAR on the MSC --> The DPU starts again. Then the error message „DPU check slug box“ appears.

DPU power off - paper supplied!	CRPW 02	After the paper has left the LH magazine, the power supply of the DPU is interrupted Main switch of the DPU switched off Fuse of the CP1 DPU blown Power supply unit of the DPU defective MS1DMB triggered	Switch on the main switch Check the mains voltage Operate CP1 Check/replace the power supply unit Check the right position of the FOCRT Check/replace MS1DMB After removing the cause, press CLEAR on the MSC --> The DPU starts again.
DPU engine error see DPU display	ENGN 01	Defective FOCRT exposure unit (Sienna). Check the display of the DPU	Press the key 4 on the display See the chapter Error messages on the display of the DPU
DPU door open	ECOP 01	Sensor MS3DMB sees that the door of the DPU is open MS3DMB maladjusted MS3DMB defective Parameter DPDOR of file PA_MC.DAT not on 0.	Close the door Adjust MS3DMB Check/replace MS3DMB Set the parameter DPDOR to 0 --> The error message does not appear any more. Note: If the value of DPDOR is altered while the error message is displayed, the message does not disappear! The cause for the error message must be removed first.
DPU Line Printer Port 1 missing	LPTA 06	The printer port selected in the INI file does not exist (e.g. parallel port = 1, corresponds to the port address 0x378, but no printer port is installed for this, or has been deactivated in the CMOS)	Install the parallel port 1 and/or enable it in the CMOS
DPU Line Printer Port 2 missing	LPTB 06	The printer port selected in the INI file does not exist (e.g. parallel port = 2, corresponds to the port address 0x278, but no printer port is installed for this, or has been deactivated in the CMOS)	Install the parallel port 2 and/or enable it in the CMOS
DPU paper does not fit	PCCR 01	Paper of the wrong width inserted on the left side.	Do not change the paper any more! Otherwise there are colour drifts. Select either „Reject print“ or continue printing with the inserted paper.
DPU wrong calibration pattern	PCCR 02	Calibration pattern useless (usually too small to insert the additional data as a text)	Check the calibration pattern, Use the original pattern
DPU calibration pattern missing	PCCR 03	Calibration pattern cannot be found on the hard disk in the specified directory	Check the hard disk, Copy the calibration pattern to the hard disk
DPU digital image not found	PCCR 04	Digital image found on the hard disk, but deleted again so that the image cannot be printed Hard disk of IP damaged	Send the image again Check the hard disk, e.g. with Scandisk

DPU digital image corrupted	PCCR 05	Digital image found on the hard disk, but cannot be printed because of an erroneous file contents	Use only undamaged BMP and JPG files as digital images, the image may also have been damaged by network transmission errors
DPU default GLT file missing	PCCR 06	The Default GLT file required for the calibration cannot be found	Copy the file from the installation CD to the hard disk
DPU channel GLT disappeared	PCCR 07	The GLT file belonging to the selected digital channel and required for the calibration cannot be found although the digital channel has been calibrated already	Repeat the calibration of the digital channel
DPU wrong GLT file	PCCR 08	The GLT file for the calibration is defective and/or does not contain all required entries	Press Reset + Print and start the autocalibration again
DPU syntax error in ICF file	PCCR 11	The ICF file is faulty and cannot be processed correctly	Transfer fault (repeat the transfer) or check the program generating the ICF file, update if necessary
DPU syntax error in BCF file	PCCR 12	The BCF file is faulty and cannot be processed correctly	Transfer fault (repeat the transfer) or check the program generating the BCF file, update if necessary
DPU digital image too large	PCCR 14	The size of the digital image is larger than the maximum admissible image file size of 40Mbyte and is therefore cut	Reduce the image and print it again
DPU digital image too long	PCCR 15	The image is longer than the maximum admissible length of 305mm and is therefore cut	Shorten the image and print it again
DPU wrong Indexprinter	PCCR 16	The selected printer type (LCD, Mitsubishi) is not authorised The MSC starts without the DPU --> The Mitsubishi printer is switched on automatically	Select the printer type DPU in the menu
DPU channel not calibrated	PCCR 17	The selected digital channel has not (yet) been calibrated	Perform the calibration for this digital channel
DPU F/Port initialisation failed	PCCR 18	The file for the initialisation of the FPort board cannot be found and/or the Download cannot be performed correctly	Check the INI file indication, check the file, start the IP again
DPU no F/Port found	PCCR 19	Wrong Jumpering of the F/Ports No FPort can be found on the indicated printer port, switch-over to the standard parallel port	The following Jumpering must be set: IRQ 5 IO address 278 Install the FPort board and/or check the existing board. If no board is mounted, set the INI entry CRTUseFPort to 0

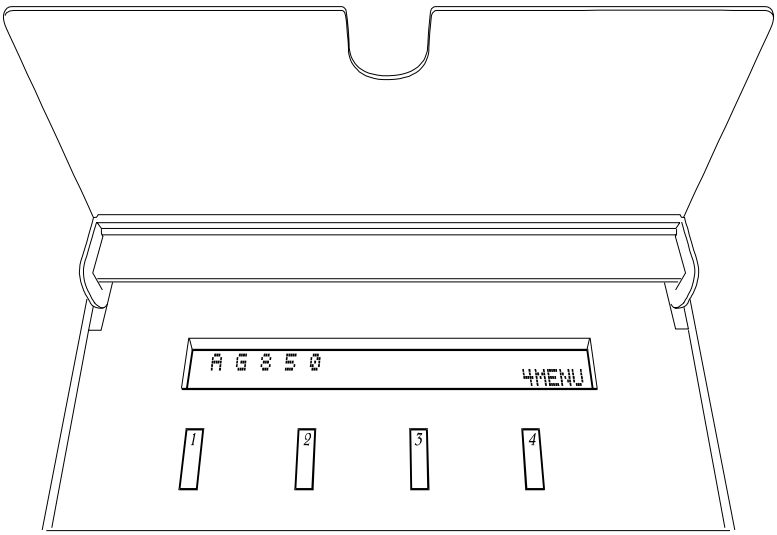
DPU TMF file missing	PCCR 20	The TMF file for the external calibration belonging to the selected paper width cannot be found	Check the entries in the TMF.INI file, if necessary create the TMF file
DPU JPEG file is not RGB type	PCSW 38	The JPEG file is no RGB type. It cannot be printed	Change the file to a RGB type
Index Cal. SyncError FD!	FDIP 01	Sync errors during the Index camera calibration	Check the camera cable and plug Replace the camera
Index Frame SyncError FD!	FDIP 02	Camera sync errors during the exposure for the Indexprint	Check the camera cable and plug Replace the camera
Index Filter Error FD!	FILT 01	Cut Off filters in the lamphouse not set correctly during camera calibration or exposure.	Check the Cut Off filter unit
IIP: Calibration not completed!	PCAC 01	This is only an information telling that the calibration of the IIP logic has not been terminated. See also the chapter *Operation*	Insert the next film If no calibration is desired, the parameter AUTOC must be set to a value ≥ 0
IIP: Frame grabber init. not possible!	PCHW 01	Frame grabber defective	Replace
IIP: Frame grabber missing!	PCHW 02	Frame grabber missing Frame grabber not mounted correctly Frame grabber defective	Mount Check Replace
IIP: Camera not connected!	PCHW 03	Camera not connected Plug not plugged in correctly Parameter INDEX of file IP_MC.DAT on 1	Connect the camera Check the plug If no Indexprints are to be produced, INDEX must be set to 0
IIP: Camera calibration not performed!	PCHW 14	IIP switched on while a film is in the Feeder. The camera calibration can therefore not be performed. The IIP is switched off again.	Move out the film Switch the IIP back on in the menu ON/OFF. Reinsert the film
IIP: Hilpert-path-file missing!	PCSW 09	The indicated directory cannot be found	Reinstall the Software
IIP: Separation table missing!	PCSW 10	Configuration files missing	Reinstall the Software
IIP: Look-up table missing!	PCSW 11	Configuration files missing	Reinstall the Software
IIP: Layout file missing!	PCSW 12	Configuration files missing	Reinstall the Software

IIP: Frame grabber driver incomplete!	PCSW 13	Configuration files missing	Reinstall the Software
IIP: Camera calibration TIMEOUT!	PCSW 14	Cable or plug of the interface defective	Check/replace
IIP: Frame cycle TIMEOUT!	PCSW 15	Cable or plug of the interface defective	Check/replace
IIP: Film cycle TIMEOUT!	PCSW 16	Cable or plug of the interface defective	Check/replace
IIP: Negative missing!	PCSW 21	The number of reported frames differs from the number of the frames actually sent to the Index Image Processor Film removed from the Scanner? Communication error	Check whether the data cable is ok Reinsert the film and activate the Indexprint only function Reinstall the Software
IIP: Bitmap for logos missing!	PCSW 23	Logo files cannot be found	Reinstall the Software Check/replace the Bitmap files
IIP: Font-files missing!	PCSW 24	Indicated files cannot be found	Reinstall the Software
IIP: No entry in C-DATA file!	PCSW 26	The message appears when no data block of the current film has been created in the file C_DATA.*. This is only for information.	Press <CLEAR>. A data block is created for this film if the parameter AUTOC is set to a value > 0.
IIP: IP_MC.DAT not active!	PCSW 27	The message appears when parameter SERVI in the file IP_MC.DAT is on 1. The data entered in this file is not taken over by the IIP. This message is only for information.	Press <CLEAR> Set parameter SERVI to 0.
IIP (Logo)Bitmap wrong resolut./compress.	PCSW 31	Bitmap has a wrong resolution or is compressed.	Set the correct resolution (see also the supplement at the end of the documentation) Decompress the Bitmap
IIP (Logo-)Bitmap type wrong/Read error	PCSW 32	Bitmap cannot be used: - Wrong type - Cannot be read because the file is damaged.	Only JPG and BMP files can be used Use another file
IIP Harddisk is (almost) full	PCSW 33	Hard disk of IIP almost full - this may cause lock-ups.	Delete unnecessary directories e.g. backup directories of old Software versions.

IIP Printer Type is not/no more supported	PCSW 34	Wrong ink jet printer still selected on the MSC --> Wrong SW version on MSC! Cannot be used any more Wrong entry in file CONFIG.INI	Install Main SW 2.61 on the MSC Alter the entries in the file CONFIG.INI: 3 Mitsubishi printer 5 DPU
IIP Film without negatives	PCSW 35	Film has no printable frames and only one selection criterion is used. No picture should appear on the Indexprint for this selection criterion (frame selected) ==> The film is immediately ejected by the Printer, no Indexprint is produced.	If an Indexprint should be produced all the same, „PRINT“ must be selected for this selection criterion. In most cases, the criterion „Underexposed“ is concerned.
IIP too much negatives	PCSW 36	Software bug: The number of frames reported by the Agfa processor as not having been selected does not agree with the number on the Indexprint. The customer succeeded in taking more than 40 printable frames on the film --> Not all frames can be shown on the Indexprint	Press <CLEAR> Explain to the customer that he should not put the film in the camera under a cover!

Error Messages on the Display of the DPU

If the MSC shows the message: „DPU error see DPU Display“, exact information about the error can be found there. It is located under the small lid at the top of the DPU.
These messages can only be displayed in English. Switch-over is only provided for Japanese (Katakana).



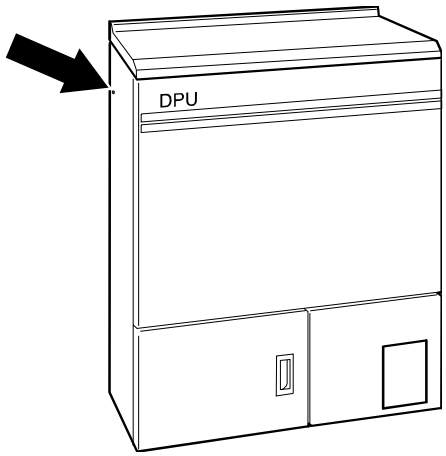
Messages without Error Code

Message	Cause	Remedy
NOVRAM FAULT Setups are lost. Restoring factory defaults.	Software bug.	Press 4 CONTINUE The machine-specific data is deleted. See the chapter Image centering. The values must be reentered. If the error occurs frequently, the Software has to be reloaded
New Novram. Setups are lost. Restoring factory defaults	This message appears after a new Software has been loaded.	Press 4 CONTINUE The machine-specific data is deleted. See the chapter Image centering. The values must be reentered.
ERROR - Bad MPCL Command Received.	Invalid command sent to the FOCRT unit This message appears for example when a digital image or an Indexprint is interrupted during the exposure. The data still in the memory of the FOCRT unit are then interpreted as a command by mistake.	Press 4 GO_ON. Work can be continued.
ERROR - MPCL Command Failed	A command sent to the FOCRT unit cannot be performed.	Press 4 GO_ON. Work can be continued. If the error occurs frequently, the IIP Software has to be reloaded.
ERROR! Paper access door is open	Sensor MS4DMB sees the door of the DPU open MS4DMB maladjusted MS4DMB defective	Close the door Adjust MS4DMB Check/replace MS4DMB

Messages with Error Code (Software)

Error messages with an error code mainly concern the Software of the FOCRT unit. They are not listed in detail in the following because the same remedy holds for all of them:

– Reset the FOCRT. The switch can be operated with a thin pencil (see figure)



– If the error occurs frequently, the Software of the FOCRT unit has to be reloaded

Messages with Error Code (Hardware)

Error Code	Cause	Remedy
16, 17, 18	Cathode cannot be calibrated.	Check the connector of the grid voltage for correct seating Check the fuses
34	Line broken in the vertical deflection unit	Check all connectors
61, 62	Electrostatic charge because of insufficient grounding of the FOCRT unit	Check all screws for tight seating (including the tube)
94	Electrostatic charge because of insufficient grounding of the FOCRT unit The acceleration voltage of the tube is deviated	Check all screws for tight seating (including the tube) The pressure unit touches the face plate and deviates the voltage --> Switch off the DPU and push the pressure unit away from the face plate

Possible Errors and their Remedy

Error	Cause	Remedy
The tolerance values are not reached after a stop and a restart of the test print cycle	New start before the test print of the interrupted cycle is on the Scanner --> Print measured and correction values used for the new cycle. For this reason, the tolerance values will never be reached!	Before starting again, wait until the test print of the interrupted cycle is at the Sorter
It takes very long until the aim values are reached upon calibration	Paper inserted incorrectly upon the start of the cycle. Display of a corresponding error message. Then paper inserted correctly. The test print is no longer exposed as a test print, but as a digital image (somewhat lighter). Calibration cycle 2-3 times longer Calibration plate of densitometer dirty	If the message "Wrong paper for test print" is displayed, stop the test print, put in the right paper and start again Clean
The MSC asks for the wrong paper width	MSC in optical mode, paper width Y mm inserted, Image X x Y send with Autoturn on, magazine with width Y removed and digital mode selected --> MSC asks for width Y, but should be X Stop required when Y is inserted This only happens when width Y is removed and the digital mode is selected **afterwards**!	Insert paper width X and select Handle order later --> The order is performed correctly
The MSC asks for a paper width that is not authorised.	Autoturn function active although the print length does not correspond to a paper width	Stop the order Deactivate Autoturn Make sure that the right paper width is inserted before sending the digital print.
The black letters and the Logos of the Indexprints are glared	Digital channel of the paper in use not calibrated Wrong paper inserted and MSC display showing a corresponding error message. Magazine removed and „correct“ paper inserted. ⇒ Indexprint then exposed with the correction data of the paper inserted before	Calibration If the Indexprint is to be produced, do not change the magazine any more when an error message has been displayed already on the MSC! Otherwise stop the Indexprints
Lock-up of the IP after the installation of the DPU	Index configuration of the MSC still set for an LCD unit	Modify the Index channels for DPU Indexprints

Lock-up of the IP processor after a digital image has been sent to the DPU - the MSC shows the message IIP Time Out	Mitsubishi printer set on the MSC as Indexprinter - therefore no storage location for digital images reserved.	Set the DPU as Indexprinter. Check the setting in the file CONFIG.INI of the IP: The line „Last Used Printer“ must show 5. Provide the CONFIG.INI file with a write protect
After startup of the MSC IIP: wrong Indexprinter type" and IIP: Font files missing" is displayed	MSC started without the DPU. Then the Mitsubishi is set as Indexprinter	In the menu EDIT/INDEX IMAGE PROCESSOR/PRINTER TYPE select the DPU as Indexprinter. The DPU must be ON so that it can be selected.
DPU does not switch on when the MSC is started up	Wrong PA Software loaded IDENT on 10 (only on MSC 100) 51D-EXI board not supplied with +5 V, crimp connections (only on MSC 100) not correct +5 V supply too low Relay in main power supply unit of the DPU not switching --> defective	Load the right Software with Download PA On the MSC 100, set IDENT to 30 Check the crimp connections The 51D-EXI board must be supplied by 4,9 to 5,0 V Check/replace the relay
After a digital print has been interrupted, the MSC shows the error message "Error - see DPU display". The DPU display shows "Bad MPCL Command.....4 GO ON“	After the interruption of a digital print, the FOCRT is reinitialised, image data still in the memory is interpreted as command.	After pressing 4 GO ON, the error message disappears - work can be continued.
The transfer program cannot send an image to the DPU any more The version number of the IP is shown under INFO/SOFTWARE	Network connection interrupted Transfer program started before the full initialisation of the network	Check the connector Set the network directory of the transfer program again
The transfer program cannot send an image to the DPU any more The version number of the IP is **not** shown under INFO/SOFTWARE	IP switched off due to an error (e.g. by the Index camera)	Switch on the IP again in the menu ON/OFF IP If the IP is on, switch it off in the menu, **push the Reset button of the IP**, after 5 minutes, switch the IP on again in the menu ON/OFF
No image can be sent to the DPU any more after the MSC, the DPU and the Workstation have been switched on (mainly at production start)	Workstation started before the IP. Impossible to initialise the network connection.	Implement the network connection again in the Windows Explorer, or close the Workstation and start it again (IP must be operative) In future, start the Workstation only when the version number of the IP is shown on the MSC under INFO Software

Several digital images were sent to the DPU. The message "Digital print mode required" does not appear.	The data transfer for large images takes somewhat longer. Error messages on the display of the MSC concerning the DPU Communication between IP and FOCRT disabled Check the DPU directory with Windows NT Explorer of the IP. No .abt or .pri files should exist without pertaining .icf and .b01 / j01 files, i.e. a .icf without a .b01 / j01 file. No calibration of the Index camera because IP switched off upon the start of the MSC	Have a little patience and wait Remove the cause for the error Briefly open the DPU door - the FOCRT is reinitialised If there are, delete them On an optical print channel, switch on the Index function - the calibration is performed. Then go into the digital print mode.
A digital paper was sent. A paper transport was performed, since then nothing happens. The display of the DPU shows "MOVING"	Paper moved to the FOCRT unit by the paper transport, but not recognised LS1DEN defective	Briefly open the door of the exposure table --> The paper is returned, briefly open the DPU door and send the order again Check/replace LS1DEN
Lock-up of the IP after pressing "Handle order later"	When a digital image is to be printed that requires a paper width other than the one inserted, the message appears telling that the wrong paper is inserted. Total lock-up of the IP if „Handle order later“ is pressed and the file has been deleted by the transfer program or by Pixtasy	The function "Handle order later" does not work in the Main SW V 2.64! Either insert the right paper or delete the order.
The new modified Logos cannot be copied to the IP processor with IIP selftest.	DPU not closed after insertion of the diskette - an error message in the IP prevents printing	Close the DPU door For the exact procedure see the DPU operation manual
Modifications of the file IP_MC.DAT are not taken over by the IP Learning new films for the Index does not function	All files in the directory MSC_IP are write protected when the Update CD is burnt --> The INI files as well as the C_DATA files cannot be altered.	Remove the write protect for these files in the Windows Explorer of the IP. Copy the file REINST.BAT (obtainable via Lab Tech Notes) to the hard disk (Root) of the IP and start. The write protect of the files concerned is removed.
If only one screen is connected to the IP, a window appears showing a Windows NT error message	This is the message telling that no keyboard is connected. This has no effect on the function of the IP.	Copy the files KBFIX.BAT and KBFIX.REG to the hard disk (Root) of the IP (obtainable via Lab Tech Notes) Start KBFIX.BAT --> The setting of Windows NT is altered so that the error message does not appear any more

Lock-up of the MSC at the end of paper while a digital image is being exposed	This happens if not only the message about the missing paper, but also another error message appears before new paper is inserted. Lock-up of the MSC if Continue order is pressed.	In this case, only MSC OFF/ON helps. This can be prevented by interrupting the order before inserting the new paper.
Unsharp areas in the image (of only one colour, e.g. yellow)	Insufficient pressure during exposure Tape spacer consumed	Check the pressure part mechanism Change the tape spacer (see maintenance instructions)
Message from Pixtasy: "DPU control file cannot be opened"	No network connection to IP File STATUS.MSC in IP damaged	Check the network connection Reenter the path on the Pixtasy computer Delete the file STATUS.MSC as well as all other files in the DPU directory of the IP and start the IP again
Only a certain paper width cannot be calibrated - no corrections are performed.	Check the name of the associated digital channel - no control characters, e.g. ", (, %, $ etc.) or spaces should be inserted.	Delete the channel and reenter it (use normal characters).

Additional Parameters in the file PA_MC.DAT

Code	Description	Unit/Step	Default value
DEXPP	Constant for the transport length of the paper up to the FOCRT unit for MO1DPD	0,001 mm	5000
DCUTZ	Cut length constant of the paper	0,001 mm	5000
DCUTX	Cut length correction of the paper Admissible range -10 to +10	0,5 mm	0
SCUTX	Modification of the width of the cut-out strip, Admissible range -3 to +3	0,5 mm	0
PWGHP	Correction of the automatic paper guide Admissible range -20 to +20	0,07 mm	0
RWDMD	0 When changing between the left and the right paper magazine, the paper of the magazine used last is not moved out again, but remains in waiting position. 1 When changing, the paper is returned into the magazine	-	0
DPDOR	1 When the DPU door opens, the PA sends the error message „DPU door open“. As the same error message is sent by the FOCRT unit, the text appears twice on the MSC display 0 The error message is suppressed by PA.	-	0

Adjustment of the Parameters

General

Paper

- Use the paper that is used for the DPU.
  If papers of different thickness are used, this may cause slight differences in the paper transport and by this of the print length. (To prevent misunderstandings: If there is a difference in length, then this appears between two paper types. The length is constant within one paper type.)
- Use of 152 mm paper
  Smaller paper widths are possible, but 152 mm paper should always be used.

Order

DCUTX → DCUTZ → DEXPP → Top Margin

The `Top Margin` is corrected on the DPU panel, all other parameters are corrected in the `PA_MC.DAT`.

DCUTX

This parameter adjusts the length of the single sheet Multiprint (n prints on one sheet). The length of the first print is adjusted to the length of the second print.

- ❑ Use the DPU transfer program to print a print (at will) with the **`Number 3`**, the **`Length 100 mm`** and the **`Resolution 294 dpi`**
  (Only the three parameters have to be entered. All other parameters are of no importance.)
  In the chapter **DPU without a transfer program**, a procedure is described how to work without the DPU transfer program.
- ❑ Define the length difference ΔL between the mean length of the prints two and three and the first print.
  $\Delta L = \bar{L}_{23} - L_1$
  (The absolute length of the prints is of no importance, only the difference is important.)
- ❑ $\Delta L \leq \pm 0.5$ mm: $\Rightarrow$ no correction required
- ❑ $\Delta L > \pm 0.5$ mm:
  Calculate the number of correction pulses, i.e. 1 pulse = 0.5 mm
  (Formulae: Correction pulse = integral(ΔL / 0.5 mm))
- ❑ $DCUTX_{new} = DCUTX_{old}$ + correction value
- ❑ Print three test prints (see above) and check ΔL.
  If necessary, repeat the procedure

Example

Measure the three prints. Important: The first print is the one that is at the bottom in the Sorter.

1st print: 99,9 mm
2nd print: 99,3 mm
3rd print: 99,2 mm

Find the mean value of the 2nd and the 3rd print:

(99,3 mm + 99,2 mm) / 2 = **99,25** mm

Calculate the length difference between the 1st print and the mean value:

99,9 mm - 99,25 mm = 0,65 mm

⇒ The difference is greater than 0,5 mm, for this reason, a correction is required.

Calculate the correction value:

0,65 mm / 0,5 mm = 1,3 ⇒ **The correction value is 1**

The value of DCUTX must be increased by 1.

Note Negative values result if the mean value of the 2nd and the 3rd print is greater than the value of the 1st print. This means that the value of DCUTX must be reduced in proportion.

DCUTZ

This parameter adjusts the cut length

Note It must be decided on the premises whether or not the following operation has to be performed. If the actual cut lengths do not differ too much from the entered lengths, i.e. < 0,8 mm, the value of DCUTZ should be kept. The work input would then be higher than the benefit.

- ❑ Set the value DCUTZ to **5000**.

The following steps refer to the program **MSC - IIP \ FOCRT**

- ❑ Click on **For Experts Only \ Activate AG850 Functions**
  Click on **Setup \ Open Setup-Dialogbox**
- ❑ **Length**: 300
  Mode: Manual
  (All other parameters are of no importance.)
  Click **OK**
- ❑ Click on **File \ Print Image (BMP)**
- ❑ Select the file **START50.BMP** and open it
  (The file is in the directory: **Agfa_DPU \ MSC_IP \ Data \ TestPrint**)
  If the file does not exist, get it from LG-SAT\ML. Do not use the old file START.BMP!
- ❑ Repeat the last step five times. (Five prints are required.)
- ❑ Under Setup set the **Length** to 200 and print **START50.BMP** again five times
- ❑ Under Setup set the **Length** to 100 and print **START50.BMP** again five times
- ❑ Always find the average length of the prints 300, 200 and 100

None of the mean values differs by more than ±0.8 mm from its reference value:
⇒ No correction required

Note: Owing to the signal travel time from the sensor to the motor control, the tolerance is not the motor step width here (0.5 mm), but 0.8 mm

The mean value differs by more than ±0.8 mm:

- ❑ Calculate the number of correction pulses, i.e. 1 pulse = 0.5 mm
  (Formulae: Correction pulses = integral ((L – $\bar{L}$) ÷ 0.5 mm/pulse)))
- ❑ Look up the current DCUTZ value in the table DCUTZ in the appendix and read the three associated correction pulse values
- ❑ Add the correction pulses calculated above to the correction pulses read
  The result are the new correction pulse values
- ❑ Look up the new correction pulse values in the table and read the corresponding DCUTZ value
  (It may be that the new values do not figure in the table. In this case, it is sufficient to find similar values. The pulse number may serve as reference.)
- ❑ Enter the new DCUTZ value in the **PA_MC.DAT**
- ❑ Print five test prints each
  If necessary, repeat the procedure

Example

Measure the lengths of the individual prints:

100 mm	200 mm	300 mm
Measured values (all in mm)		
99,25	199,85	299,20
100,80	199,40	299,05
99,80	199,55	299,10
99,50	199,55	299,40
100,25	200,50	299,05

Calculate the average of the 100 mm prints:

99,25 mm + 100,80 mm + 99,80 mm + 99,50 mm + 100,25 mm = 499,60 mm

499,60 / 5 = **99,92** mm

100 mm - 99,92 mm = 0,08 mm

⇒ No correction is required for step lengths 100 mm.

Calculate the average of the 200 mm prints:

199,85 mm + 199,40 mm + 199,55 mm + 199,55 mm + 200,50 mm = 998,85 mm

998,85 / 5 = 199,77 mm

200 mm - 199,77 mm = 0,23 mm

⇒ No correction is required for step lengths 200 mm.

Calculate the average of the 300 mm prints:

299,20 mm + 299,05 mm + 299,1 mm + 299,4 mm + 299,05 mm = 1495,8 mm

1495,8 mm / 5 = 299,16 mm

300 mm - 299,16 mm = 0,84 mm

⇒ A correction is required for step lengths 300 mm.

Calculate the correction value or pulse correction:

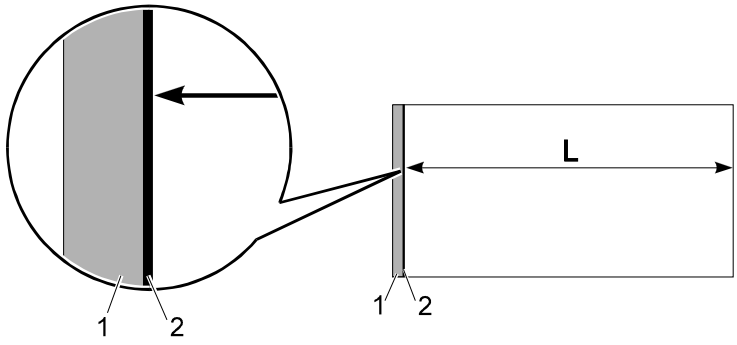
0,84 mm / 0,5 mm/pulse = 1,68 ⇒ The correction pulse for 300 mm is 1 or 2.

Take the corresponding combination from the table. As no corrections are required for 100 mm and 200 mm, the correction pulses are 0 here. The combination 0-0-1 might be used as 0-0-2 does not exist. With 0-0-1, the length 300 mm is extended on the average by 0,5 mm, the tolerance range being reached.
⇒ The new value of **DCUTZ** is **4995** or **4994.**

DEXPP

This parameter adjusts together with TOP margin the length of the exposed area.

- ❑ Set DEXPP to the start value 5000
- ❑ Measure the length L of each one of the fifteen prints printed under DCUTZ (= length of the white area)



1 Strip pattern, blue
2 Red line

- ❑ Calculate the mean value $\bar{L}$ for each length
- ❑ Calculate the differences:
  $\Delta L_{312} = \bar{L}_{300} - \bar{L}_{100} - 200$ mm ; $\Delta L_{321} = \bar{L}_{300} - \bar{L}_{200} - 100$ mm

If both differences do not exceed 0.25 mm
⇒ No correction required

Difference greater than 0.25 mm:

- ❑ Calculate the number of correction pulses i.e. 1 pulse = 0.25 mm
  (Formula: Correction pulses = Integral($\Delta L \div 0.25$ mm/pulse))
- ❑ Look up the current DEXPP value in the table DEXPP in the appendix and read the three associated correction pulse values (for start value 5000: 0 0 0)
- ❑ Add the correction pulses calculated above to the correction pulses read
  The result are the new correction pulse values
- ❑ Look up the new correction pulse values in the table and read the corresponding DEXPP value

(It may be that the new values do not figure in the table. In this case, it is sufficient to find similar values. The pulse number may serve as reference.)

- ❑ Enter the new DEXPP value in the **PA_MC.DAT**
- ❑ Print five test prints each
  If necessary, repeat the procedure

Example:

Given: Lengths L (white area) in mm:
300 mm prints: L_1=297,0 ; L_2=297,3 ; L_3=297,1 ; L_4=297,5 ; L_5=297,3
200 mm prints: L_1=197.7 ; L_2=197,8 ; L_3=197,9 ; L_4=197,7 ; L_5=197,8
100 mm prints: L_1= 98,4 ; L_2= 98,2 ; L_3= 98,2 ; L_4= 98,0 ; L_5= 98,2

Calculation: Mean values $\overline{L}$ of the lengths L
$\overline{L}_{300}$ = (297,0 mm + 297,3 mm + 297,1 mm + 297,5 mm + 297,3 mm) ÷ 5 = 297,24 mm
$\overline{L}_{200}$ = (197,7 mm + 197,8 mm + 197,9 mm + 197,7 mm + 197,8 mm) ÷ 5 = 197,78 mm
$\overline{L}_{100}$ = (98,4 mm + 98,2 mm + 98,2 mm + 98,0 mm + 98,2 mm) ÷ 5 = 98,20 mm

Calculation: Differences
ΔL_{312} = 297,24 mm – 98,20 mm – 200 mm = -0,96 mm
ΔL_{321} = 297,24 mm – 197,78 mm – 100 mm = -0,54 mm

Calculation: Correction pulses
K_{312} = integral(-0,96 mm ÷ 0,25 mm/pulse) = integral(-3,84 pulses) = -3 pulses
K_{321} = integral(-0,54 mm ÷ 0,25 mm/pulse) = integral(-2,16 pulses) = -2 pulses

Determination: New correction pulses
From the table: For DEXPP = 5000 ⇒ K_{312} = 0 ; K_{321} = 0 ; K_{300} = 0
$K_{312, new}$ = 0 + (-3) = -3 ; K_{321} = 0 + (-2) = -2

Determination: New DEXPP value
From the table: For K_{312} = -3 ; K_{321} = -2 ; K_{300} = 0
⇒ 4981 ≤ DEXPP ≤ 4984
(All values in this area trigger the same modification)

Multiprint without DPU Transfer Program

If no transfer program is available, a corresponding command for the print length and the quantity can be entered via the MSC:

- ❑ Connect the keyboard to the MSC
- ❑ Press ALT F1
  The MSC screen shows the window **Command centrale**
- ❑ Set the parameters
  Port: 3
  Command: LP (LoadPaper)
  Data: D310NN3 (General: DXXXNNY; D = Digital)
  XXX = Paper length = Print length *Y+(Y-1)*5 mm ; (5 mm = Slug width)
  NN = No Rotation NoGreeting; Y= Number of prints
  Note: Paper lengths shorter than 300 mm)
- ❑ Connect the keyboard to the IP
- ❑ Perform the following settings in the **MSC - IIP \ FOCRT** program
  Click on **For Experts Only \ Activate AG850 Functions**
  Click on **Action \ COM: Disconnect**
  Click on **Action \ Print Grid Pattern** (another print could also be used, but Grid Pattern has the advantage of a short exposure time)

Note: Holds for all tests: Print only the 305 mm long GRID Pattern. Shorter transport lengths bring up a paper jam message because the paper is not caught by the turn guide unit and drops into the Stocker.

As the IP is cut from the MSC with `COM: Disconect`, the program **MSC - IIP \ FOCRT** must be restarted:

- ❑ Close the **MSC - IIP \ FOCRT** program
- ❑ Call up the **MSC - IIP \ FOCRT** program:
  Desktop Icon **RUN DPU PROGRAM** or **C:\MSC_IP\DPU_IP.EXE** in the Explorer

Tables

DCUTZ	Pulse number				Correction pulses		
	L100	L200	L300		K100	K200	K300
4970	201	402	604		1	2	4
4971	201	402	604		1	2	4
4972	201	402	603		1	2	3
4973	201	402	603		1	2	3
4974	201	402	603		1	2	3
4975	201	402	603		1	2	3
4976	201	402	603		1	2	3
4977	201	402	603		1	2	3
4978	201	402	603		1	2	3
4979	201	402	603		1	2	3
4980	201	402	602		1	2	2
4981	201	402	602		1	2	2
4982	201	401	602		1	1	2
4983	201	401	602		1	1	2
4984	201	401	602		1	1	2
4985	201	401	602		1	1	2
4986	201	401	602		1	1	2
4987	201	401	602		1	1	2
4988	200	401	601		0	1	1
4989	200	401	601		0	1	1
4990	200	401	601		0	1	1
4991	200	401	601		0	1	1
4992	200	401	601		0	1	1
4993	200	401	601		0	1	1
4994	200	400	601		0	0	1
4995	200	400	601		0	0	1
4996	200	400	600		0	0	0
4997	200	400	600		0	0	0
4998	200	400	600		0	0	0
4999	200	400	600		0	0	0
5000	200	400	600		0	0	0
5001	200	400	600		0	0	0
5002	200	400	600		0	0	0
5003	200	400	600		0	0	0
5004	200	400	600		0	0	0
5005	200	400	599		0	0	-1
5006	200	400	599		0	0	-1
5007	200	399	599		0	-1	-1
5008	200	399	599		0	-1	-1
5009	200	399	599		0	-1	-1
5010	200	399	599		0	-1	-1
5011	200	399	599		0	-1	-1
5012	200	399	599		0	-1	-1
5013	199	399	598		-1	-1	-2
5014	199	399	598		-1	-1	-2
5015	199	399	598		-1	-1	-2
5016	199	399	598		-1	-1	-2
5017	199	399	598		-1	-1	-2
5018	199	399	598		-1	-1	-2
5019	199	398	598		-1	-2	-2
5020	199	398	598		-1	-2	-2
5021	199	398	597		-1	-2	-3
5022	199	398	597		-1	-2	-3
5023	199	398	597		-1	-2	-3
5024	199	398	597		-1	-2	-3
5025	199	398	597		-1	-2	-3
5026	199	398	597		-1	-2	-3
5027	199	398	597		-1	-2	-3
5028	199	398	597		-1	-2	-3
5029	199	398	597		-1	-2	-3
5030	199	398	596		-1	-2	-4

DEXPP	Pulse number				Correction pulses		
	L100	L200	L300		K312	K321	K300
4970	864	462	59		-5	-3	0
4971	864	462	59		-5	-3	0
4972	864	462	59		-5	-3	0
4973	864	462	59		-5	-3	0
4974	864	462	59		-5	-3	0
4975	863	461	59		-4	-2	0
4976	863	461	59		-4	-2	0
4977	863	461	59		-4	-2	0
4978	863	461	59		-4	-2	0
4979	863	461	59		-4	-2	0
4980	863	461	59		-4	-2	0
4981	862	461	59		-3	-2	0
4982	862	461	59		-3	-2	0
4983	862	461	59		-3	-2	0
4984	862	461	59		-3	-2	0
4985	862	460	59		-3	-1	0
4986	861	460	59		-2	-1	0
4987	861	460	59		-2	-1	0
4988	861	460	59		-2	-1	0
4989	861	460	59		-2	-1	0
4990	861	460	59		-2	-1	0
4991	861	460	59		-2	-1	0
4992	860	460	59		-1	-1	0
4993	860	460	59		-1	-1	0
4994	860	460	59		-1	-1	0
4995	860	459	59		-1	0	0
4996	860	459	59		-1	0	0
4997	860	459	59		-1	0	0
4998	859	459	59		0	0	0
4999	859	459	59		0	0	0
5000	859	459	59		0	0	0
5001	859	459	59		0	0	0
5002	859	459	59		0	0	0
5003	858	459	59		1	0	0
5004	858	459	59		1	0	0
5005	858	459	59		1	0	0
5006	858	458	59		1	1	0
5007	858	458	59		1	1	0
5008	858	458	59		1	1	0
5009	857	458	59		2	1	0
5010	857	458	59		2	1	0
5011	857	458	59		2	1	0
5012	857	458	59		2	1	0
5013	857	458	59		2	1	0
5014	857	458	59		2	1	0
5015	856	458	59		3	1	0
5016	856	457	59		3	2	0
5017	856	457	59		3	2	0
5018	856	457	59		3	2	0
5019	856	457	59		3	2	0
5020	855	457	59		4	2	0
5021	855	457	59		4	2	0
5022	855	457	59		4	2	0
5023	855	457	59		4	2	0
5024	855	457	59		4	2	0
5025	855	457	59		4	2	0
5026	854	457	59		5	2	0
5027	854	456	59		5	3	0
5028	854	456	59		5	3	0
5029	854	456	59		5	3	0
5030	854	456	59		5	3	0

Image Centering

To position the image correctly on the paper, there are a few parameters that can be modified in the display of the FOCRT unit. They have to be reentered upon a Download of the Software.

Parameter	Description	Default value
Image size trim	Length correction of the print	1000 / 1000
Top margin trim	Position correction of the print tip	0
Left margin trim	Position correction of the print crosswise to the paper transport direction	0

The following order should be kept for the adjustment:

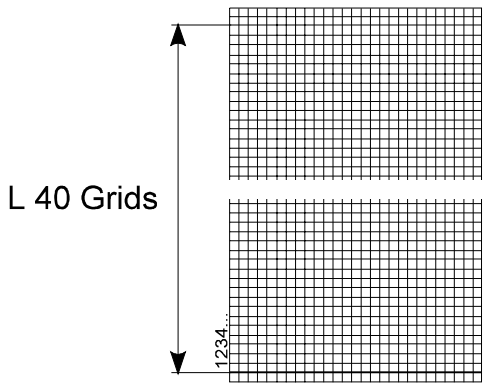
1. Image size trim
2. Top margin trim
3. Left margin trim

Determination of Image Size Trim

- ❑ Enter the default value 1000 for CO Image Size Trim via the display of the FOCRT unit:

  4 MENUS
  3 SYSTEM MENUS
  1 SYSTEM SETUP
  3 SYSTEM TRIMS
  Enter the value with the keys 1 LESS or 2 MORE.
  Press 4 RETURN to get back.

- ❑ Click „Activate AG850 Functions“ in the IP program
- ❑ Print the grid pattern
- ❑ Measure the length L of 40 boxes (see figure)



- ❑ CO Image Size Trim = (254 mm / L) X 1000
- ❑ Enter CO Image Size Trim (as above)
- ❑ Print the grid pattern 5 times
- ❑ Measure the length of 40 boxes on each print. All measured values should range 254 +/- 0,6 mm. If not, start from the beginning.

Example:
Measured length of 40 boxes : 256,5 mm
Image Size Trim = (254 mm / 256,5 mm) X 1000 = 990,253411306

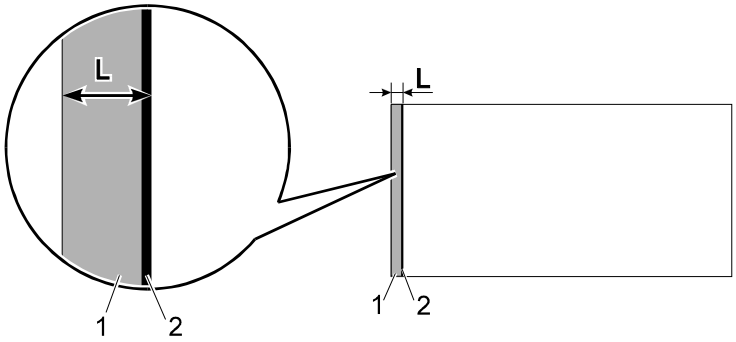
⇒ The new value of **Image Size Trim** is **990**

Determination of Top Margin Trim

- ❑ Enter the Default value 0 for CO Top Margin Trim

  4 MENUS
  3 SYSTEM MENUS
  1 SYSTEM SETUP
  3 SYSTEM TRIMS
  3 NEXT
  3 NEXT
  Enter the value with the keys 1 LESS or 2 MORE.
  Press 4 RETURN to get back.

- ❑ Measure the distance L of the last fifteen DEXPP test prints (whole coloured area including the red line).



1 Strip pattern, blue
2 Red line

- ❑ Use all fifteen prints to find the minimum and the maximum

$L_{min} \geq 1{,}9$ mm AND $L_{max} \leq 3{,}5$ mm ($L_{ref.} = 2{,}7$ mm±0,8 mm)
⇒ No correction required

$L_{min} < 1{,}9$ mm OR $L_{max} > 3{,}5$ mm:

- ❑ $\bar{L} = ½(L_{min} + L_{max})$
- ❑ TOP Margin = TOP Margin + 10 * ((2,7 mm – $\bar{L}$) ÷ 0,25 mm/pulse)
- ❑ Press the following keys on the DPU control panel:
  <4> `MENU` → <3> `SYSTEM` → <1> `SETUP` → <3> `TRIMS` → <3> `NEXT` → <3> `NEXT`

The first line of the display shows the current TOP margin value in `mils`:
`CO Top Margin Trim: XXmils ( XX)`
(The value in brackets is the currently valid value. It is updated when the menu is exited.)

- ❑ Use the keys 1 LESS or 2 MORE to modify the TOP Margin value (steps of 10).
- ❑ Press key <4> `RETURN` until `Return` is replaced by `Menu`.
- ❑ Print five test prints per length
  If necessary, repeat the procedure

Example:
Smallest measured length: 1,7 mm; largest measured length: 3,8 mm

Calculate the average:
(1,7 mm + 3,8 mm) / 2 = 2,25 mm

TOP Margin = 0 + 10 X (2,7 mm - 2,25 mm) / 0,25 = 18
⇒ The new value of **TOP Margin Trim** is **20** because only steps of 10 can be set.

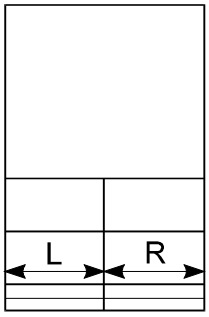
Determination of Left Margin Trim

- ❑ Enter the Default value 0 for CO Left Margin.

  4 MENUS
  3 SYSTEM MENUS
  1 SYSTEM SETUP
  3 SYSTEM TRIMS
  3 NEXT
  3 NEXT
  3 NEXT
  Enter the value with the keys 1 LESS or 2 MORE.
  Press 4 RETURN to get back.

The following steps refer to the program **MSC - IIP \ FOCRT**

- ❑ Click on **For Experts Only \ Activate AG850 Functions**
  Click on **Setup \ Open Setup-Dialogbox**
- ❑ **Length**: 300
  Mode: Manual
  (All other parameters are of no importance.)
  Click **OK**
- ❑ Click on **File \ Print Image (BMP)**
- ❑ Select the file **START50.BMP** and open it
  (The file is in the directory: **Agfa_DPU \ MSC_IP \ Data \ TestPrint**)
  If the file does not exist, get it from LG-SAT\ML. Do not use the old file START.BMP!
- ❑ Measure the lengths L and R as shown in the figure



- ❑ CO Left Margin Trim = (L - R) / 2 / 25,4 X 1000
- ❑ Print START50.BMP 3 times with a cut length of 203 mm
- ❑ Measure the lengths L and R of all prints as shown in the figure.

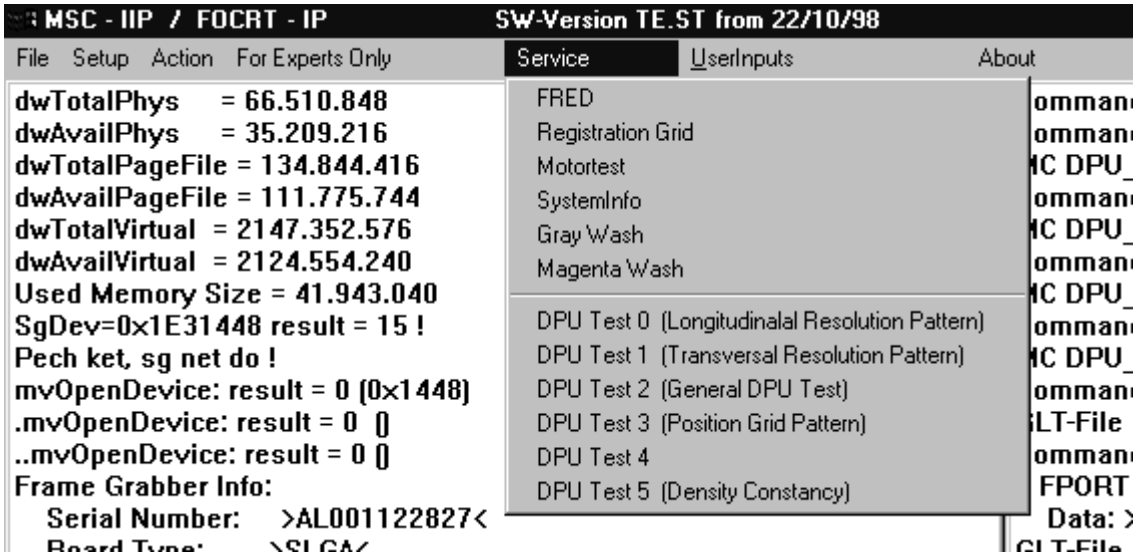
- ❑ B = (L - R) / 2
  The sum of value B must not exceed 0,7 mm on any print. If it does, start from the beginning.

Example:
L = 76,5 mm; R = 75,0 mm

Left Margin Trim = (76,5 mm - 75,0 mm) / 2 /25,4 X 1000 = 29,52755905512
⇒ The new value of Left Margin Trim is 30. (Settable in steps of 10)

Test Prints to check the Print Quality

A monitor, a mouse and a keyboard have to be connected to the IP to trigger these test prints.



Some test prints are only needed for the calibration in the factory and are therefore not described here (DPU Test 4 and 5).

FRED and System Info

FRED means Fiber Optic Registration and Equalization Device.
This calibration is performed to make sure that large areas are displayed uniformly. The test print is scanned with a high-resolution Scanner and analysed by your Service Centre. The result is used to create a correction file which has to be loaded into the FOCRT.

The calibration must be performed once upon a new installation, but may also be necessary at any other time under the following circumstances:

- When the paper manufacturer is changed.
- When the DPU is moved to another location.
- When always the same subject is printed (burn-in effect). In this case, a calibration is recommended every 12 to 18 months.
- When only small paper widths are used and should be changed to larger paper.

Note Before a test print is triggered, the face plate as well as the transport rollers of the FOCRT have to be cleaned. Please trigger not only the FRED test print, but also the „**System Info**“ print.

Registration Grid

Explanation

A black line is exposed with the colours blue, green and red. To ensure a proper reproduction of this line, the red, green and blue electron beams just be exactly superimposed, this is called registration. The TV technician calls this behaviour convergence.
The test is automatically exposed with 200 DPI. Every horizontal and vertical line on this test is exactly 1 pixel wide.

Analysis

Inspect the horizontal and vertical lines. They must appear black and must be evenly thick.
The position of the beam of one colour should not differ by more than half a pixel from the beam of another colour.
If the deviation is greater, the lines show coloured fringes.
If the quality is not satisfactory, the FOCRT unit has to be replaced.

Motor Test, Gray Wash, Magenta Wash

Explanation

These test prints represent homogeneous areas of magenta and grey. Here, malfunctions of the transport motor can be made visible.

Analysis

If faults are visible on the test print at a regular distance of 1 inch in horizontal direction, check the transport roller of the FOCRT unit.
In case of smaller regular faults in horizontal direction, the transport motor of the FOCRT unit has to be checked. Does the motor turns easily and smoothly in switched-off condition?
In case of irregular faults in horizontal direction, check the complete paper transport.

If no faults are found, the unit must be replaced (after consultation with Munich LG SAT).

DPU Test 0, DPU Test 1

These two test prints are used to check the image sharpness. If the sharpness of a DPU is not satisfactory, send both test prints to LG-SAT/ML, stating the DPU SN and the FOCRT serial number.

Note Send in test prints only after having ascertained that the paper was pressed on correctly during the exposure and that the tape spacer is not consumed.

DPU Test 2

Explanation

This test print is split up into different areas.

- Grey field with girl on the beach. To check the skin hues and see whether homogeneous areas can be reproduced without faults.
- Vertical and horizontal colour ranges to judge the colour management.
- Grey, yellow, magenta and cyan colour stripes to judge the sharpness. These colour stripes are created with an average colour density and by vertical lines, each one 1 pixel wide.
- Measuring field for the maximum density

Analysis

Sharpness:
Inspect the grey, yellow, magenta and cyan colour stripes with a magnifying glass.
A coloured and a white vertical line must be visible at turns over the whole width of the paper.
If the different lines are not visible, send this test print together with DPU Test 0 and DPU Test 1 to Munich to LG-SAT/ML (indicating the DPU FN and FOCRT serial number).
Colour management:
Inspect the vertical and horizontal colour ranges. If there is no smooth transition in the middle of each colour, the loaded “Look Up Tables” (LUTs) are not correct. At this point, there should be a smooth transition of the colour range. No disturbing dark areas should occur here.

Check the LUTs in the directory \Luts
Install new LUTs

Maximum density:
Measure the fields of the maximum densities.
Limit values:
Y=2,1
M=2,05
C=2,00
If the yellow or the magenta density is too low, check the paper chemistry

DPU Test 3 to check Skew and Tracking

Explanation

The parallel shift of the image on the paper is called „Tracking“. This means that the image is not centred on the paper. This may be due to wrong triggering of the electron beam or to a faulty paper transport.
Skewing is the word that is used to designate a slanting paper transport. This means that the image is not reproduced on paper at a right angle which may be caused by a tilted paper transport with respect to the FOCRT unit.
The transport speed of the paper must match exactly the exposure speed of the electron beam. This can be checked by measurement.
The image centering as well as the horizontal position of the electron beam is also checked on this print. For this purpose, there are scales on the left and right side at the top and the bottom border.
This test print only serves to check. These settings can be corrected if necessary by means of the adjustment instructions for the IMAGE TRIM and the LEFT and RIGHT MARGIN TRIM in the Troubleshooting manual.
The green vertical lines represent the limiting lines for smaller paper widths.

Analysis

Measure the length of the blue vertical line between the red limiting lines. The length should be exactly 280 mm.
If this is not the case, the paper transport may be dirty or may slip. Clean the transport rollers and check the paper advance. Then repeat the test.
Inspect the red horizontal limiting lines to check whether the paper transport is parallel to the exposure unit.
The red vertical reference line must be exactly in the middle.
The adjustment of the centre position and the parallelism is explained in the Troubleshooting manual.

Detailed Description of the Parameters of the File IP_MC.DAT

The MSC sends this file to the IP after every modification and after every start of the IIP. The file is listed in the following:

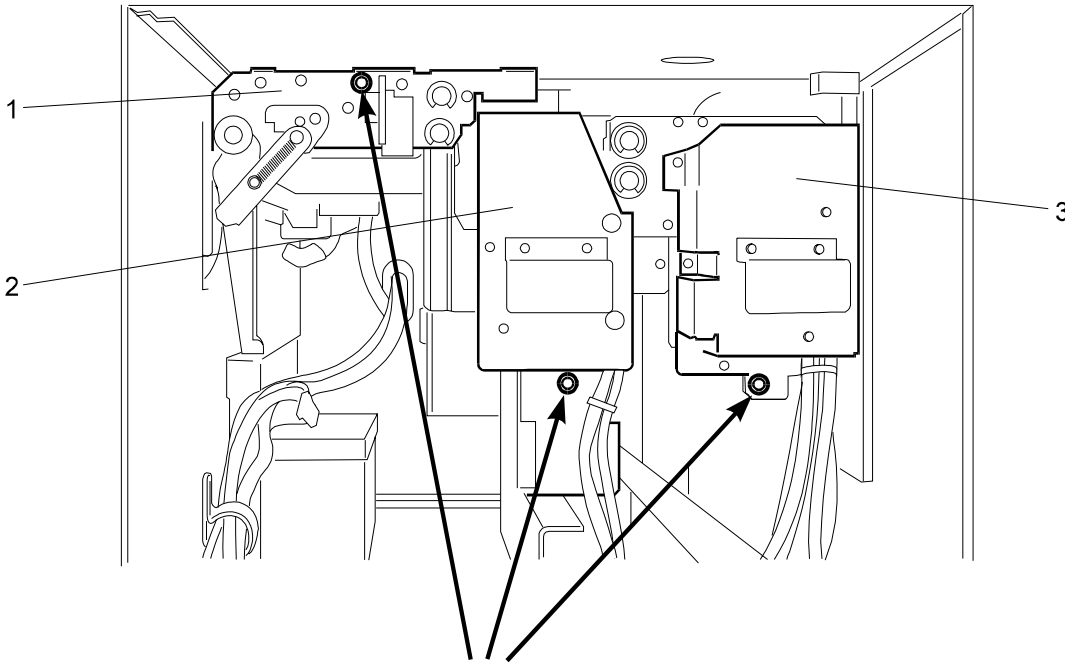
Parameter name	Default value	Minimal value	Maximal value	Function of the parameters
SERVI	0	0	1	0 The parameters of the file **IP_MC.DAT** are copied to the corresponding **INI files** of the IIP. 1 The file **IP_MC.DAT** has no effect. The screen of the MSC shows a note in the error message window.
BORDR	1	0	1	1 Pictures on the Indexprint with border 0 Pictures on the Indexprint without border
STRIP	40	10	40	From which frame should an Index be made (only in the strip mode)
P_CUT	5	-9	+9	Length of the cut strip in mm after the exposure
IP135				No function yet
IPAPS				No function yet
AUTOC	1	-99	99	AutoCal
DXOUT	0	0	1	Output of the DX code
C_LOG	0	0	1	Activation of the LOG file
DEBUG	0	0	1	Diagnosis output on the VGA monitor
SINFO	0	0	1	Output of DX numbers and film codes via serial interface
INDEX	1	0	1	0 No Index camera connected - no calibration 1 Index camera connected - calibration performed
DPU_Y	+00	-15	+15	Yellow colour correction for digital images of a Workstation (not Pixtasy) 1 ≡ 1 manual correction MSC
DPU_M	+00	-15	+15	Magenta colour correction for digital images of a Workstation (not Pixtasy) 1 ≡ 1 manual correction MSC
DPU_C	+00	-15	+15	Cyan colour correction for digital images of a Workstation (not Pixtasy) 1 ≡ 1 manual correction MSC
DPU_D	+00	-15	+15	Density correction for digital images of a Workstation (not Pixtasy) 1 ≡ 1 manual correction MSC
SW_01	0	-9	9	reserved for later applications
SW_02	0	-9	9	reserved for later applications
SW_03	0	-9	9	reserved for later applications
SW_04	0	-9	9	reserved for later applications
SW_05	0	-9	9	reserved for later applications
SW_06	0	-9	9	reserved for later applications
OPT_1	0	-9999	9999	reserved for later applications
OPT_2	0	-9999	9999	reserved for later applications
OPT_3	0	-9999	9999	reserved for later applications
OPT_4	0	-9999	9999	reserved for later applications
OPT_5	0	-9999	9999	reserved for later applications
OPT_6	0	-9999	9999	reserved for later applications

Note

The parameters DPU_Y, DPU_M, DPU_C, DPU_D are not entered automatically into the file upon the Update to 2.64 MSC.

Paper Transport

Removal of the Paper Transport Module



1 Paper guide
2 Turn roller unit
3 Cutter unit

Proceed as follows to remove the unit:

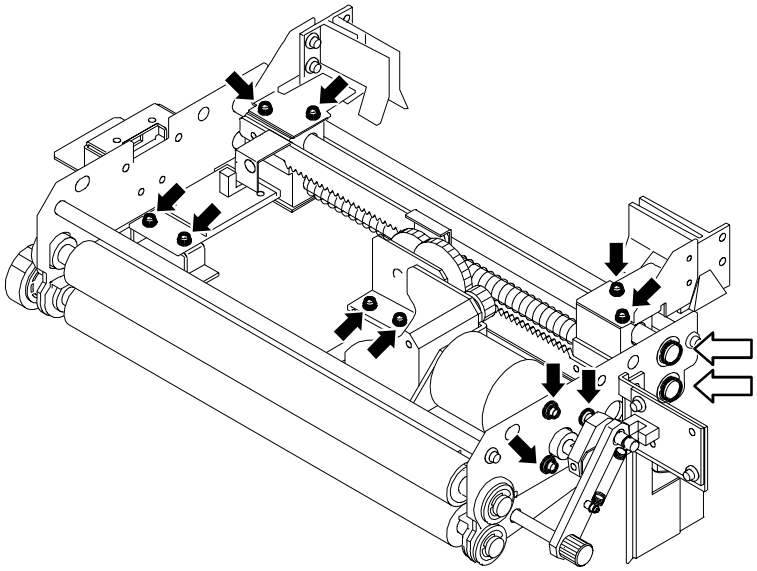
- ❑ Remove the carrier from the paper guide (not illustrated). The top screws are in the area of the FOCRT.
- ❑ Unscrew the screws marked by arrows. The paper guide is fastened by one nut.
- ❑ Disconnect the connectors (bottom left) of the associated components.
- ❑ Pull out the turn roller unit and the cutter.

Caution

Take out the paper guide with care. The holding rails are less than one cm long. Support the unit from below when removing it.

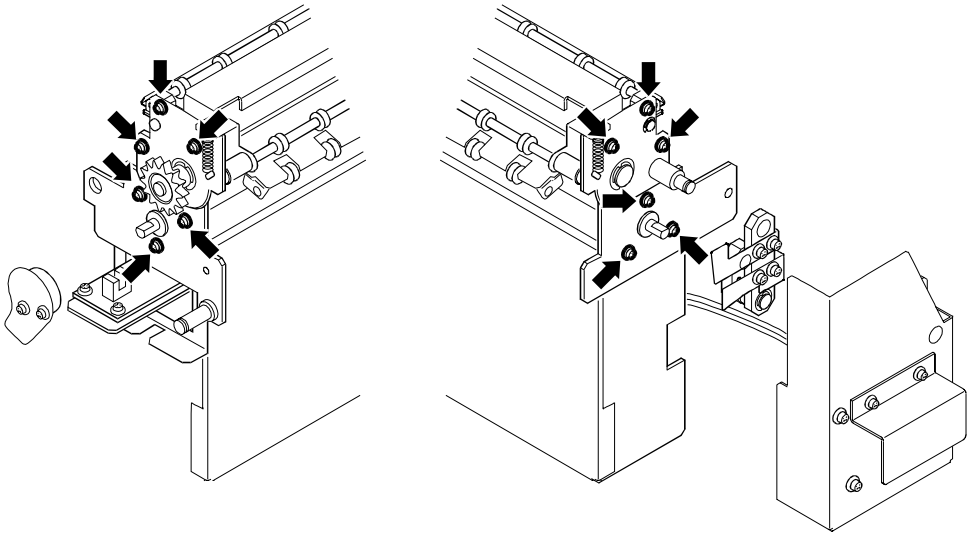
Paper Guide

Only very few parts of this module are allowed to be replaced. All screws that must never be slackened are marked by arrows.
In case of a fault, the complete unit must be replaced. The light sensor LS2DPG (position monitoring of the paper guide) must not be replaced either.



Turn Roller Unit

All screws marked by an arrow must not be slackened!



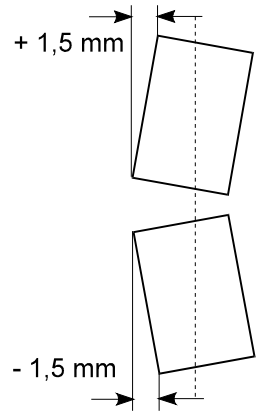
Cutter Unit

This unit is no problem. All parts can be replaced in case of need. When the complete unit is replaced, the parameters DCUTZ and DCUTX must be redefined.

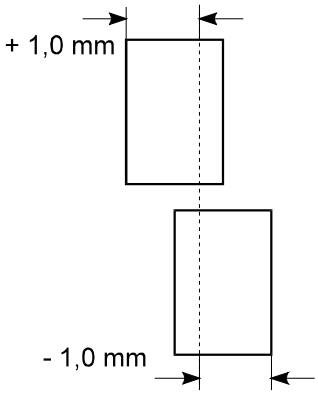
Paper Transport Tolerances

The following figure shows the admissible deviations of the paper transport.

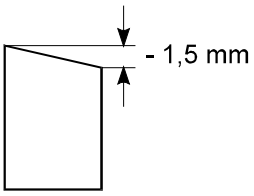
Skew



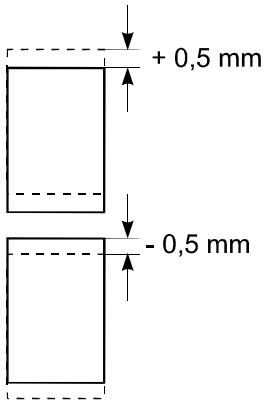
Tracking



Cut



Transport



Paper Control Sequence

		Paper Magazine			Paper Transport					Turn Roller unit					Cutter	
	Action	MO3AMD	MC2AMD	MC4AMD	MO1DPD	MC1DPD	MC2DPD	MC3DPD	MC4DPD	MO1DTR	MO2DTR	LS1DTR	LS3DTR	LS4DTR	MO1DCT	LS1DCT
1	Exposure command from Main	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF
2	Paper in Turn Roller Unit	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF
3	Paper loop in Buffer	ON	ON	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF
4	Turn Roller in Pos. vertical	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	ON	ON	OFF	OFF	OFF
5	Paper up to Top Sensor (LS4DEN) FOCRT	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	ON	ON	OFF	OFF	OFF
6	Paper in Pos exposure	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF
7	Roller pressure in FOCRT	MO1DEN in FOCRT: ON; LS2DEN: ON (Position closed);														
8	Release roller pressure in Turn roller	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	ON	ON	OFF	OFF	OFF
9	Pressure on face plate	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF
10	Release pressure on face plate	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF
11	Roller pressure in Turn Roller	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	ON	ON	OFF	OFF	OFF
12	Release roller pressure in FOCRT	MO1DEN in FOCRT: ON; LS3DEN: ON (Position open)														
13	Paper returned into Turn Roller Unit	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
14	Turn Roller in Pos. horizontal	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	ON	OFF	ON	OFF	OFF
15	Paper in Cutter	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	ON
16	Cut paper length	OFF	OFF	OFF	ON	ON	ON	ON	ON	OFF	OFF	ON	OFF	ON	ON	ON
17	Print to Exposure Table	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	OFF	OFF	ON	OFF	ON	OFF	OFF
18	Cut 5 mm strip	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	ON	OFF	ON	ON	OFF
19	Paper returned to Turn Roller unit	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF
20	Turn Roller in Pos vertical	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	ON	OFF	ON	OFF	OFF
21	Paper in waiting position to FOCRT	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF
22	Waiting position	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF
23	After 30 sec paper returned	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF

Software of the FOCRT (Exposure Unit)

Loading new Software

In certain cases, i.e. frequent appearance of error messages with error code on the display of the DPU or in case of modifications, a new Software version has to be loaded into the FOCRT unit.
For this, the diskette to trigger the FRED test print is required which is included in the accessory pack of the IP.
At first, the diskette has to be slightly modified:

- ❑ Put the diskette in a Laptop or a computer.
- ❑ Open the File Manager or the Explorer and inspect the contents of the diskette.
- ❑ Change the name of the file AUTOEXEC.BAT to e.g. AUTOEXEC.FRE
- ❑ Change the name of the file AUTOEXEC.SWD to AUTOEXEC.BAT
- ❑ Note down the following parameter values in the DPU menu:
  - CO Image Size Trim
  - CO Page Size Trim
  - CO Top Margin Trim
  - CO Stepper Motor Table

  The next page shows how these parameters are calculated.
- ❑ Perform a Shutdown on the MSC
- ❑ Push the diskette in the disk drive of the IP
- ❑ Switch the MSC back on by the „ON“ key
  The IP is booted from A: and begins the Software Download immediately after startup. This operation takes a few minutes.
- ❑ Wait until the DPU display shows „AG850“
- ❑ Remove the diskette
- ❑ Press the Reset key of the IP

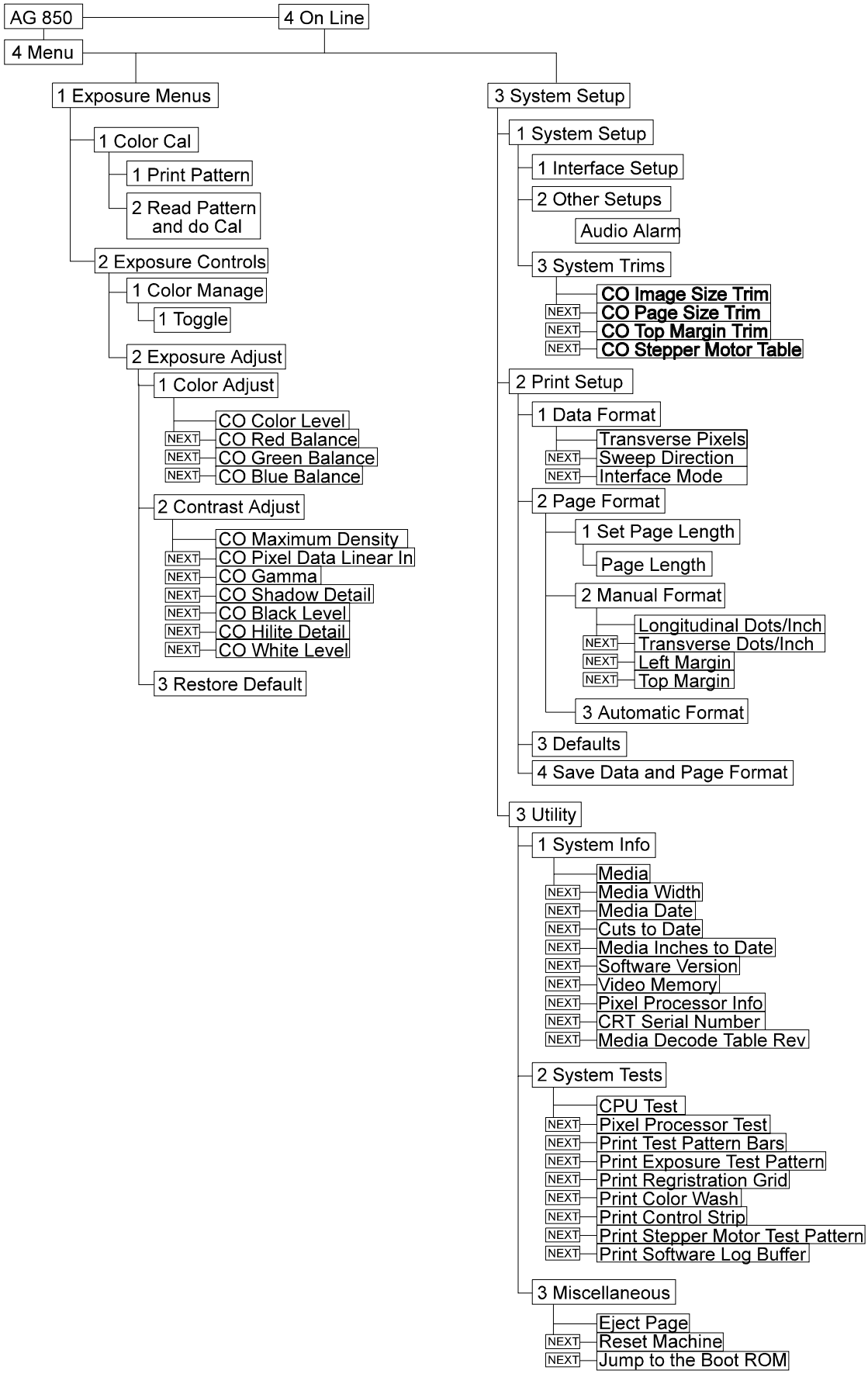
The IP starts the normal program and the work can be continued as usual.

Menu Overview

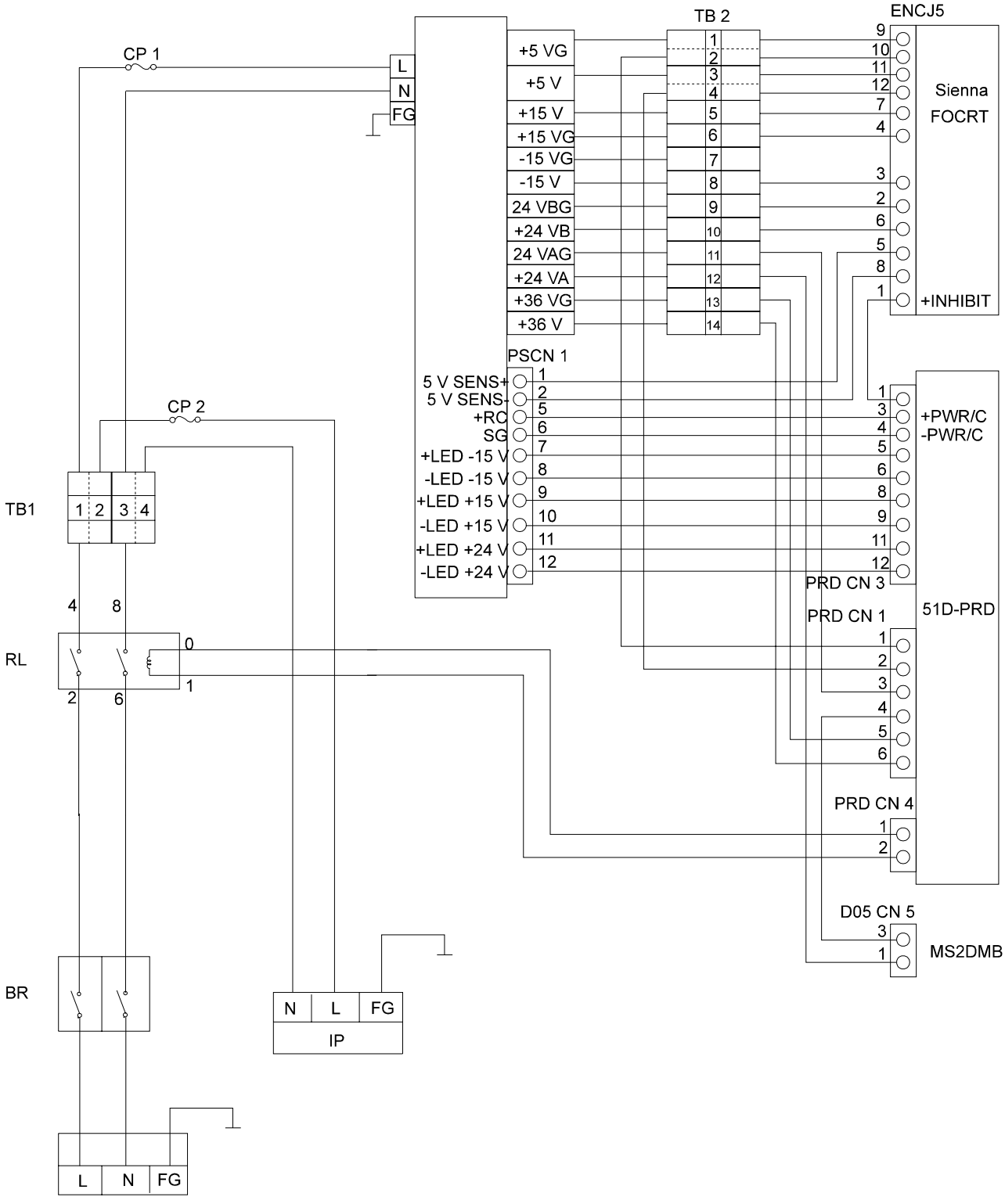
The menu of the FOCRT unit can be opened on the DPU display by means of the 4 keys. The next page shows an overview.

Most of the items have no function because the exposure control is ensured by the IP. They are used in Sienna machines. Only the lines in bold face are important.

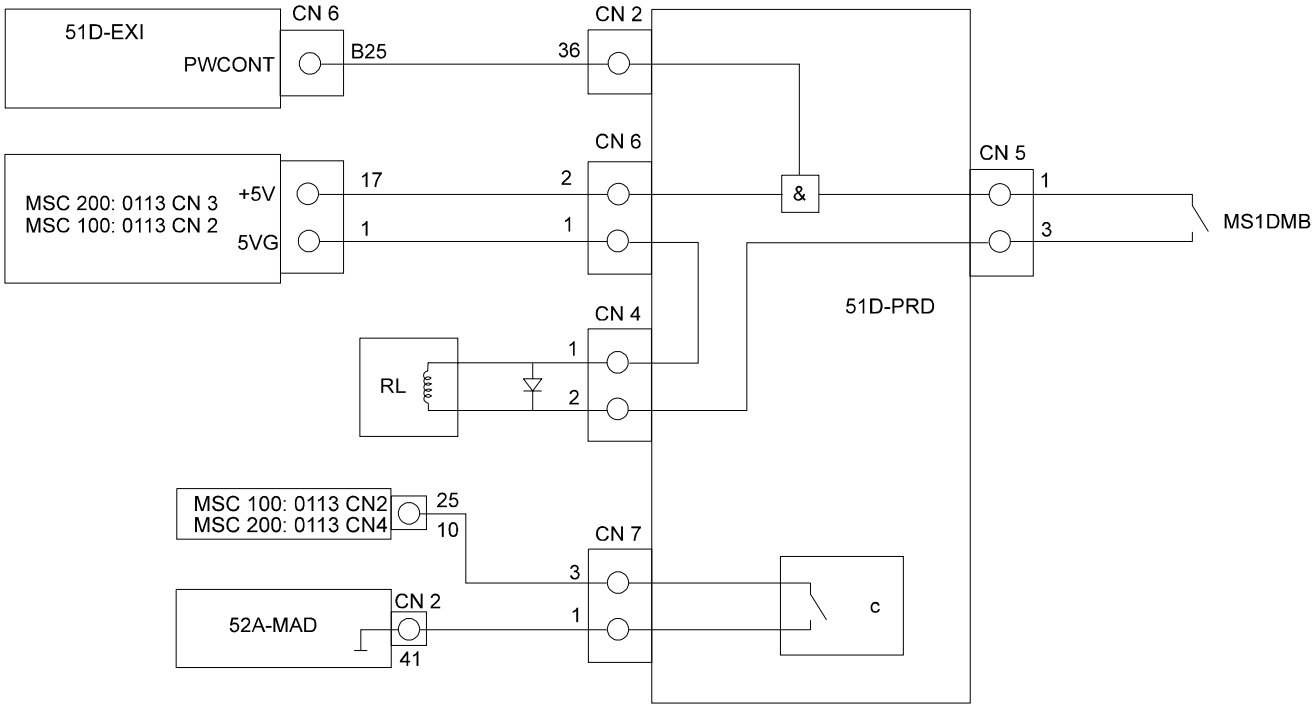
Note Please do not alter the presettings! Only the parameters described in the chapter Image centering can be varied.


AG 850
4 On Line
4 Menu
1 Exposure Menus
1 Color Cal
1 Print Pattern
2 Read Pattern and do Cal
2 Exposure Controls
1 Color Manage
1 Toggle
2 Exposure Adjust
1 Color Adjust
CO Color Level
NEXT CO Red Balance
NEXT CO Green Balance
NEXT CO Blue Balance
2 Contrast Adjust
CO Maximum Density
NEXT CO Pixel Data Linear In
NEXT CO Gamma
NEXT CO Shadow Detail
NEXT CO Black Level
NEXT CO Hilite Detail
NEXT CO White Level
3 Restore Default
3 System Setup
1 System Setup
1 Interface Setup
2 Other Setups
Audio Alarm
3 System Trims
CO Image Size Trim
NEXT CO Page Size Trim
NEXT CO Top Margin Trim
NEXT CO Stepper Motor Table
2 Print Setup
1 Data Format
Transverse Pixels
NEXT Sweep Direction
NEXT Interface Mode
2 Page Format
1 Set Page Length
Page Length
2 Manual Format
Longitudinal Dots/Inch
NEXT Transverse Dots/Inch
NEXT Left Margin
NEXT Top Margin
3 Automatic Format
3 Defaults
4 Save Data and Page Format
3 Utility
1 System Info
Media
NEXT Media Width
NEXT Media Date
NEXT Cuts to Date
NEXT Media Inches to Date
NEXT Software Version
NEXT Video Memory
NEXT Pixel Processor Info
NEXT CRT Serial Number
NEXT Media Decode Table Rev
2 System Tests
CPU Test
NEXT Pixel Processor Test
NEXT Print Test Pattern Bars
NEXT Print Exposure Test Pattern
NEXT Print Regristration Grid
NEXT Print Color Wash
NEXT Print Control Strip
NEXT Print Stepper Motor Test Pattern
NEXT Print Software Log Buffer
3 Miscellaneous
Eject Page
NEXT Reset Machine
NEXT Jump to the Boot ROM

Circuit Diagram of the Power Supply Unit



Switch-on Control of the DPU



Switch-on sequence:

When the 5V supply of the MSC is started, the 51D-PRD board is supplied with the signal PWCONT and +5V. When the switch MS1DMB is closed (FOCRT locked), the relay (RL) of the power supply unit of the DPU is triggered.

The 51D-PRD board is energised by +5V from the power supply unit of the DPU. The monitoring C switches the Low active signal of the 52A-MAD board through to the MSC. If this is not the case, the signal PWCONT is reset and the DPU does not switch on.

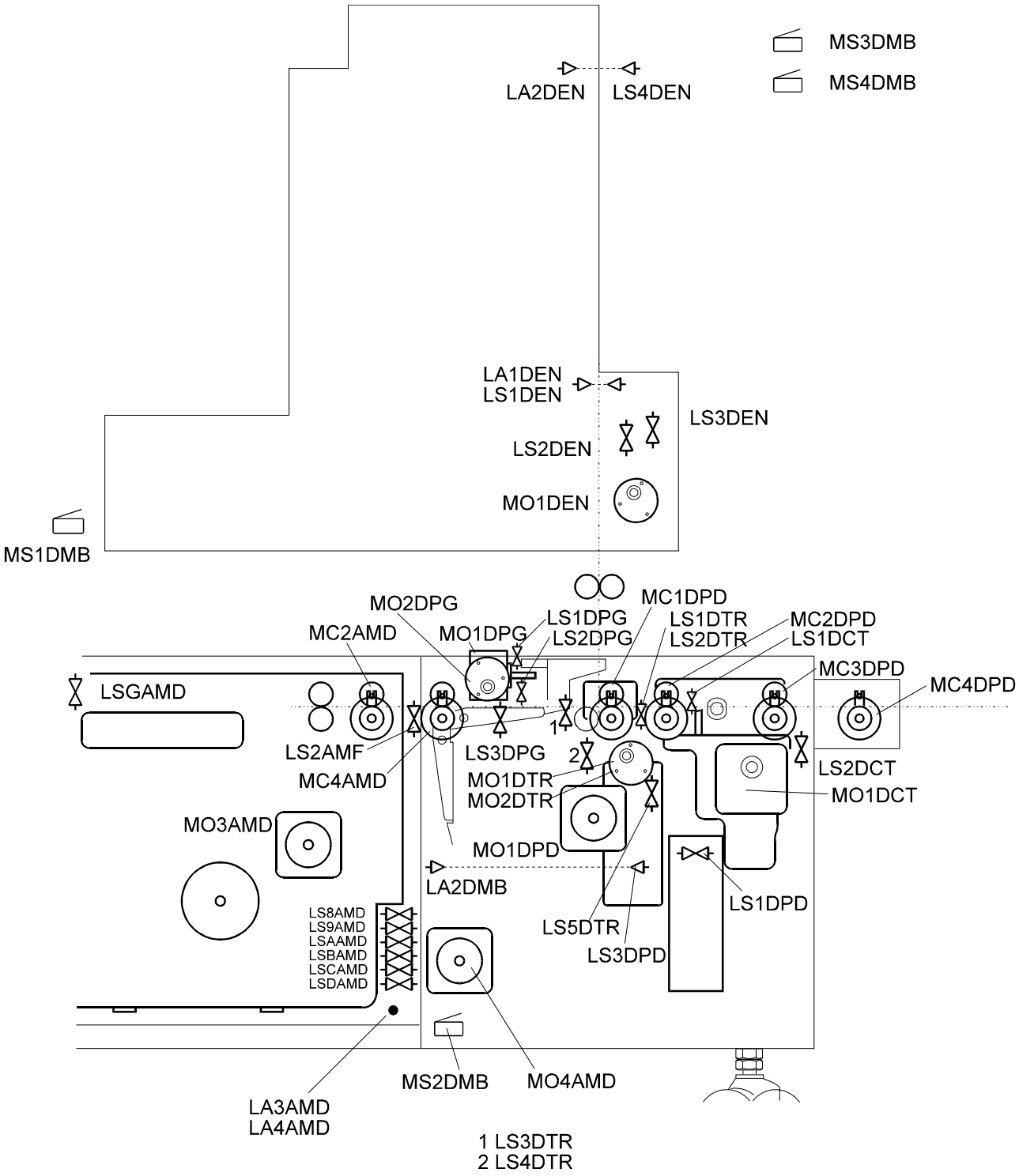
Possible causes if the DPU is not switched on together with the MSC:

- Wrong Software of the 53A-CPU board of the MSC loaded
- +5V power supply PRD CN 6 insufficient.
- Connector PRD CN 2 not connected correctly. There is a separate connector for MSC 100 and MSC 200 (see chapter Installation)
- MS1DMB not closed, FOCRT not correctly pushed in
- Connector PRD CN4 not connected correctly
- Connector PRD CN7 not connected correctly

The supply voltages of the DPU power supply unit should be within the following range:

Rated voltage	Admissible range
+5 V	4,97 - 5,1 V
-15 V	-15,08 - -14,92 V
+15 V	14,92 - 15,08 V
+24 V	23,85 - 24,15 V
+36 V	35,85 - 36,15 V

Overview of all Sensors and Loads



Explanation of Functions

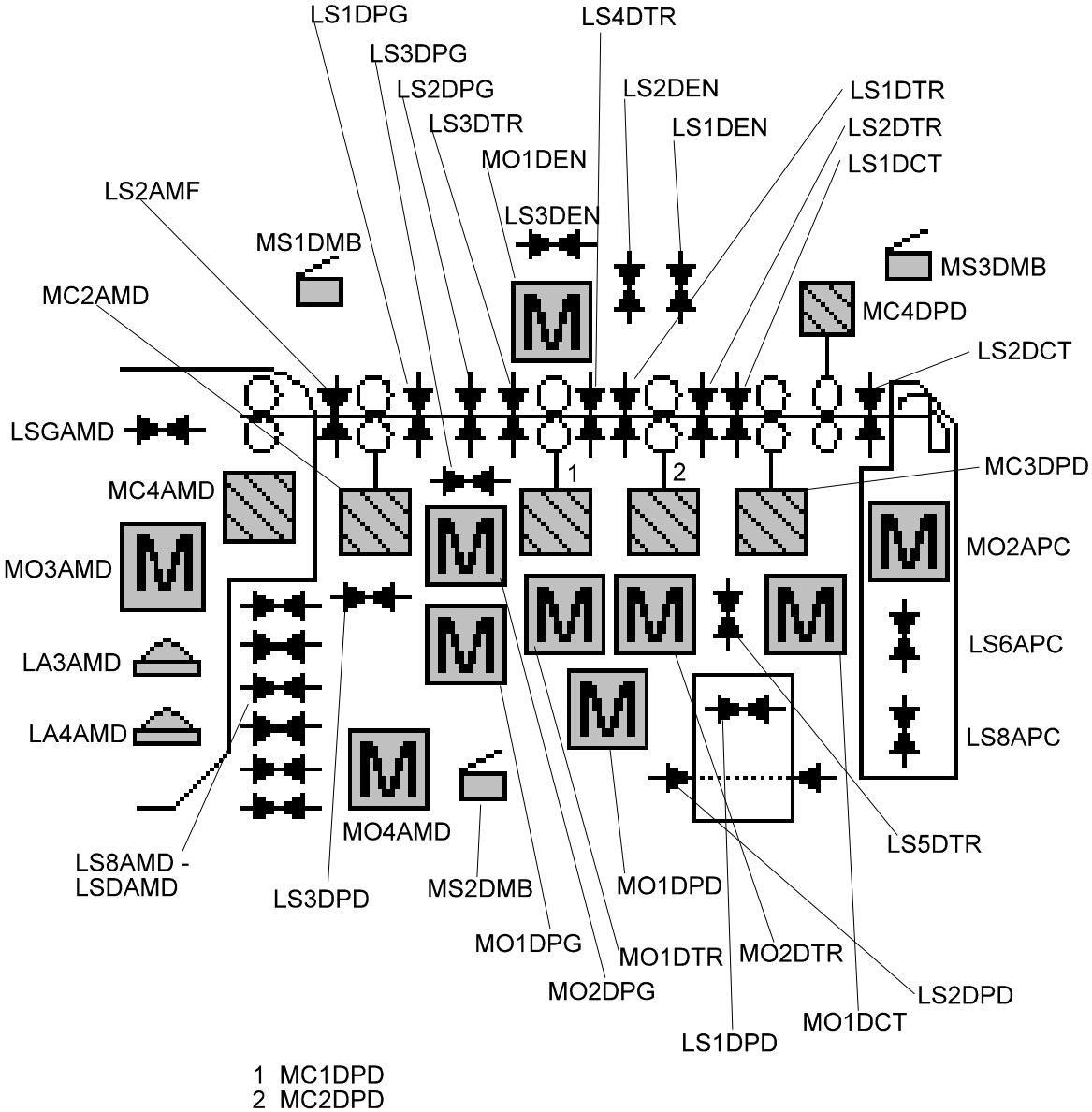
Designation	Function
LA1DEN	LED for LS1DEN
LA2DEN	LED for LS4DEN
LA1DMB	DPU on LED
LA2DMB	LED for LS3DPD
LS2AMF	Paper detection on magazine
LS1DCT	Paper in Cutter detection
LS2DCT	Cutter in home position
LS1DEN	Paper detection in the FOCRT unit
LS2DEN	Detection pressure roller closed
LS3DEN	Detection pressure roller open
LS4DEN	Detection paper in Top Position
LS1DPD	Detection slug box mounted
LS3DPD	Loop detection
LS1DPG	Detection flap down
LS2DPG	Paper guide in home position
LS3DPG	Detection flap up
LS1DTR	Paper detection Turn Roller
LS2DTR	Splice detection in Turn Roller unit
LS3DTR	Detection Turn Roller in vertical position
LS4DTR	Detection Turn Roller in horizontal position
LS5DTR	Roller pressure detection
MC1DPD	Magnetic clutch Turn Roller
MC2DPD	Magnetic clutch for roller drive before Cutter
MC3DPD	Magnetic clutch for roller drive behind Cutter
MC4DPD	Clutch for roller drive MSC Cutter
MO1DCT	Cutter motor
MO1DEN	Pressure in FOCRT
MO1DPD	Paper transport motor
MO1DPG	Motor of paper guide adjustment
MO2DPG	Flap movement
MO1DTR	Turn Roller drive for the 90° rotation
MO2DTR	Roller pressure motor
MS1DMB	Interlock switch CRT unit locked in
MS2DMB	Interlock switch cover front bottom right
MS3DMB	DPU door open detection - message to MSC
MS4DMB	DPU door open detection - message to FOCRT unit
MS5MDB	Reset switch for FOCRT unit

Paper Magazine Drive

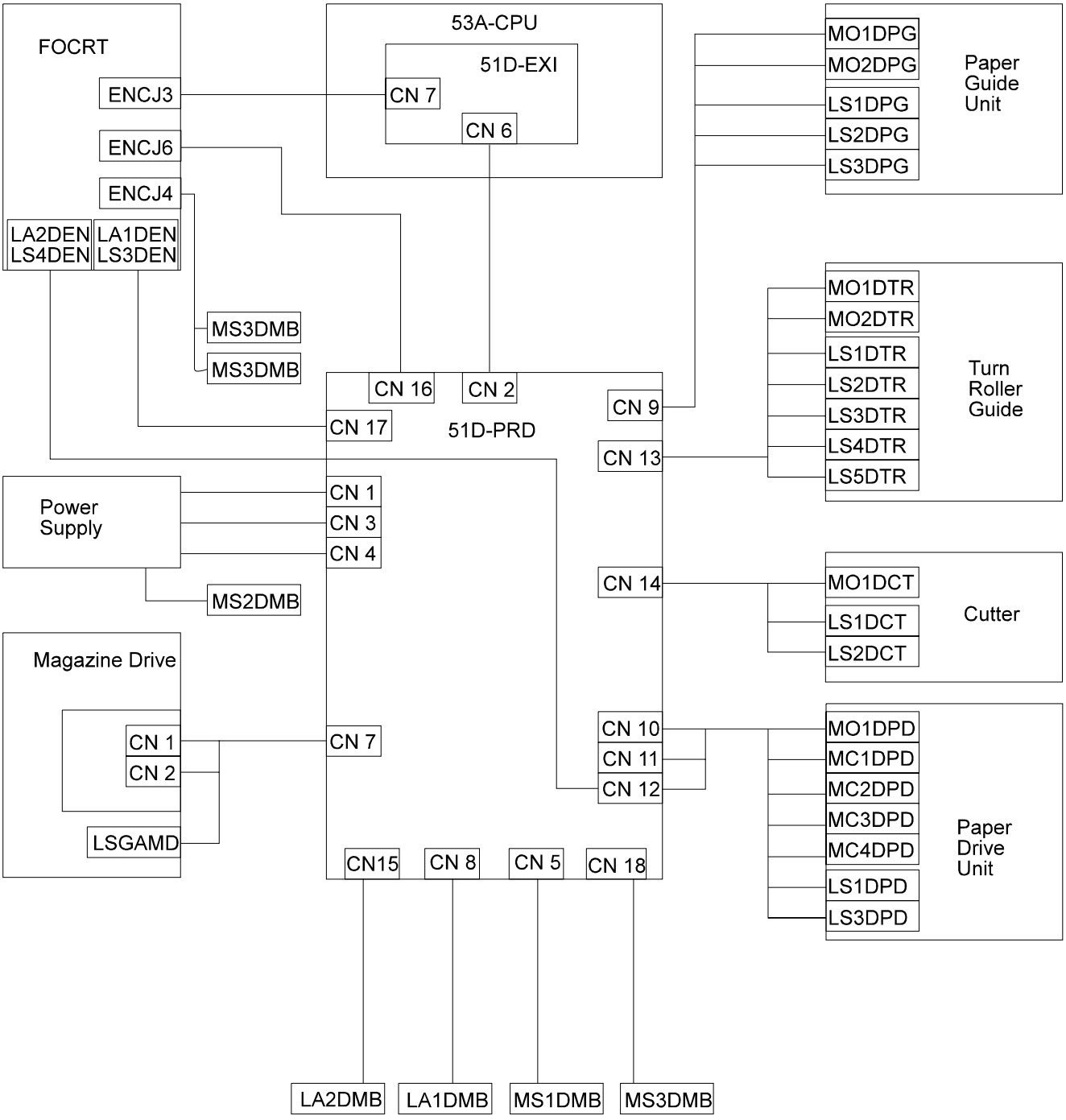
Designation	Function
LA3AMD	LED indication (red) magazine must not be removed
LA4AMD	LED indication (green) magazine may be removed
LS8AMD - LSBAMD	Paper width detection on magazine
LSCAMD - LSDAMD	Paper surface detection on magazine
LSGAMD	Magazine locked detection
MC2AMD	Magnetic clutch for roller set in the magazine
MC4AMD	Magnetic clutch for the paper transport in the automatic paper guide
MO3AMD	Paper transport
MO4AMD	Magazine drive

Activation of the Sensors and Loads in the Service Menu

All sensors and loads can be checked in the service menu. The following graph shows the locations of the individual components.



Block Circuit Diagram of the DPU



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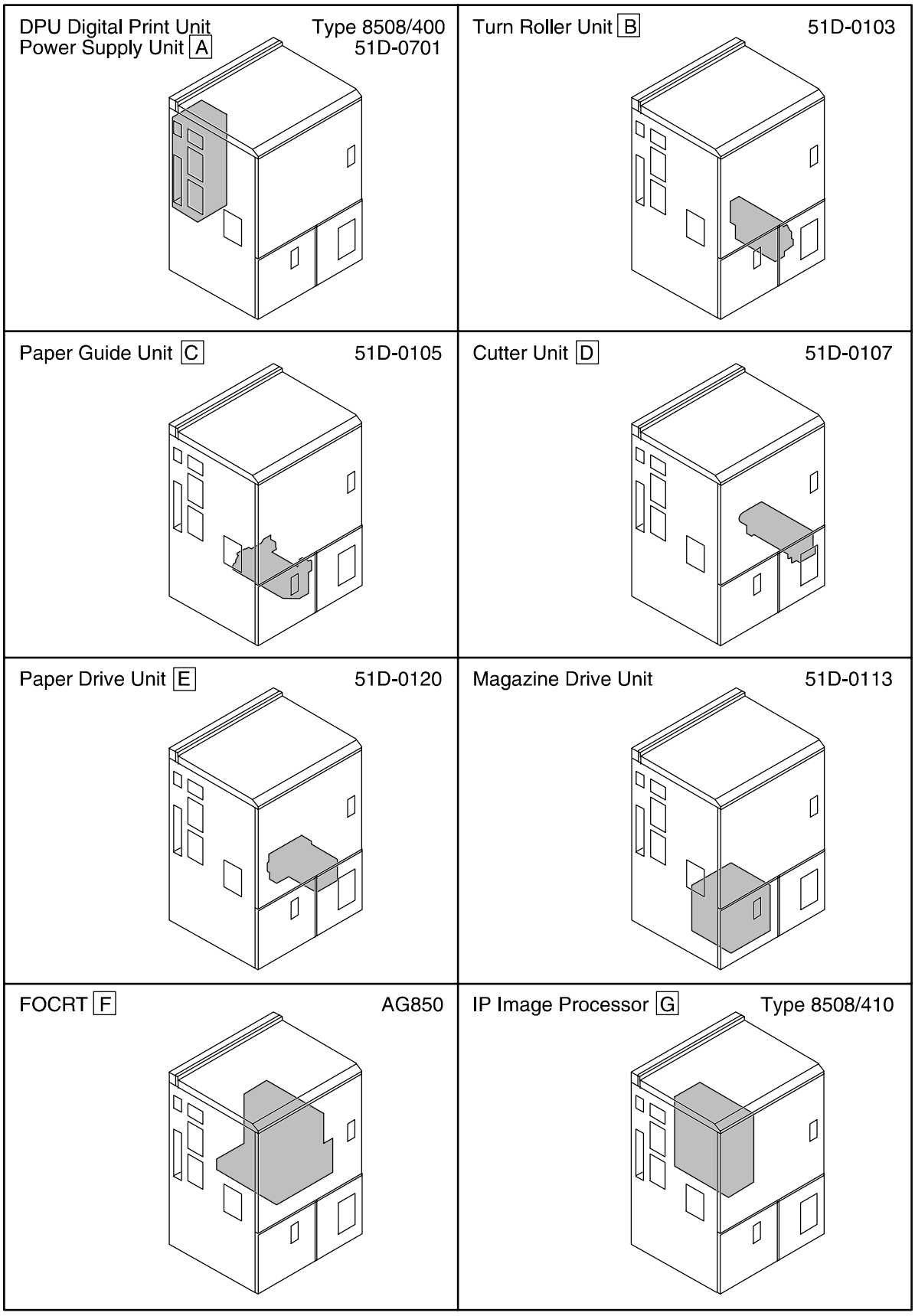
DPU Digital Print Unit Überblick / DPU Digital Print Unit Overview / Vue d'ensemble du DPU Digital Print Unit


DPU Digital Print Unit Type 8508/400
Power Supply Unit A 51D-0701
Turn Roller Unit B 51D-0103
Paper Guide Unit C 51D-0105
Cutter Unit D 51D-0107
Paper Drive Unit E 51D-0120
Magazine Drive Unit 51D-0113
FOCRT F AG850
IP Image Processor G Type 8508/410

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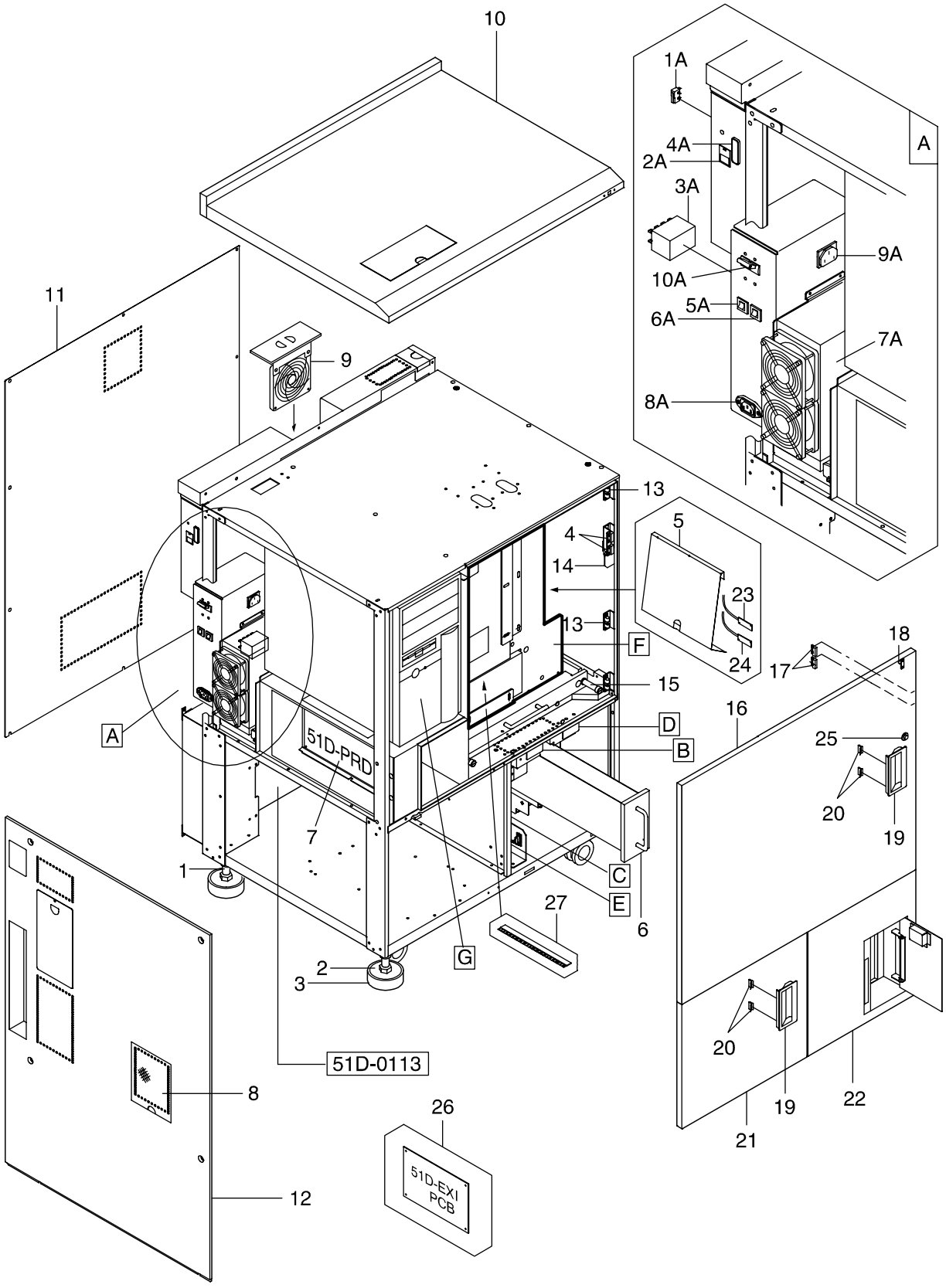
DPU Digital Print Unit **8508/400**
Power Supply Unit **51D-0701**

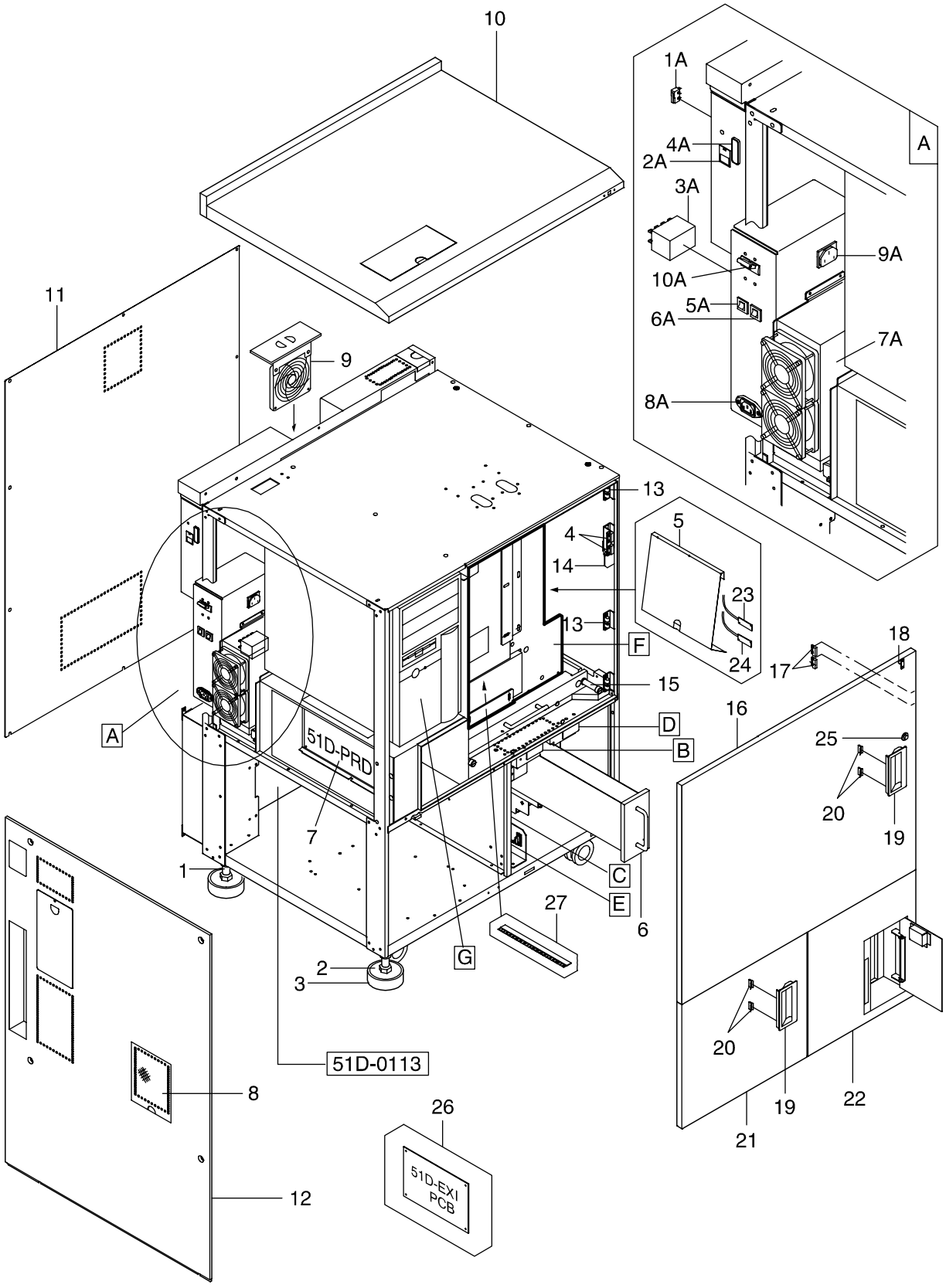


dpu28.cdr

DPU Digital Print Unit — 8508/400
Power Supply Unit — 51D-0701

Pos. Item no. Pos.	Teil-Nr. Part no. No. de ref.	ABC Code	Bezeichnung Description Désignation	Bemerkungen Remarks Remarques
1	P4 -87594	9OH63	Nivellierschraube Adjuster Vis d'ajustage	
2	P4 -87595	96RPC	Druckplatte Spacer Plaque de pression	
3	P4 -87596	96RQE	Stellfuß Spacer Pied	
4	P4 -2928(1/1)		Schalter RS-803NO (Reed) Switch RS-803NO (Reed) Commutateur RS-803NO (Reed)	
5	P3 -E4176		Folie Sheet Feuille	
6	P5A-E4280		Schnipselbehälter, vollständig Slug box assy Réservoir, compl.	
7	P5A-E4500		51D-PRD Gedruckte Schaltung 51D-PRD PCB assy 51D-PRD Circuit imprimé	
8	P4 -E4384		Luftfilter Air filter Filtre à air	
9	P4 -4071(1/1)		Luftfilter FL-12 Air filter FL-12 Filtre à air FL-12	
10	P4T-E4420		Abdeckung, oben (B) Top cover (B) Capot en haut (B)	
11	P4T-E4428		Abdeckung, hinten Rear cover Capot, arrière	
12	P5A-E4407		Abdeckung links, vollständig L-Cover Sub assy Capot à gauche, compl.	
13	P4 -5180(3/1)		Kugelrastung C-90-2 Ball catch C-90-2 (female) Arrêtage à billes C-90-2	
14	P4 -E4348		Winkel Lock plate Equerre	
15	P4 -E4189		Schraube Screw Vis	
16	P5A-E4403		Abdeckung, vorne (A), vollständig Front cover (A) Sub assy Capot avant (A), compl.	
17	P4 -2928(3/1)		Magnet M-803 Magnet M-803 Aimant M-803	
18	P4 -5179(3/1)		Kugelrastung C-90-2 Ball catch C-90-2 (male) Arrêtage à billes C-90-2	
19	P4 -6008		Griff Handle Poignée	
20	P4 -6009		Klemme Clamp Agrafe	
21	P5A-E4404		Abdeckung, vorne (B), vollständig Front cover (B) Sub assy Capot avant (B), compl.	

DPU Digital Print Unit **8508/400**
Power Supply Unit **51D-0701**



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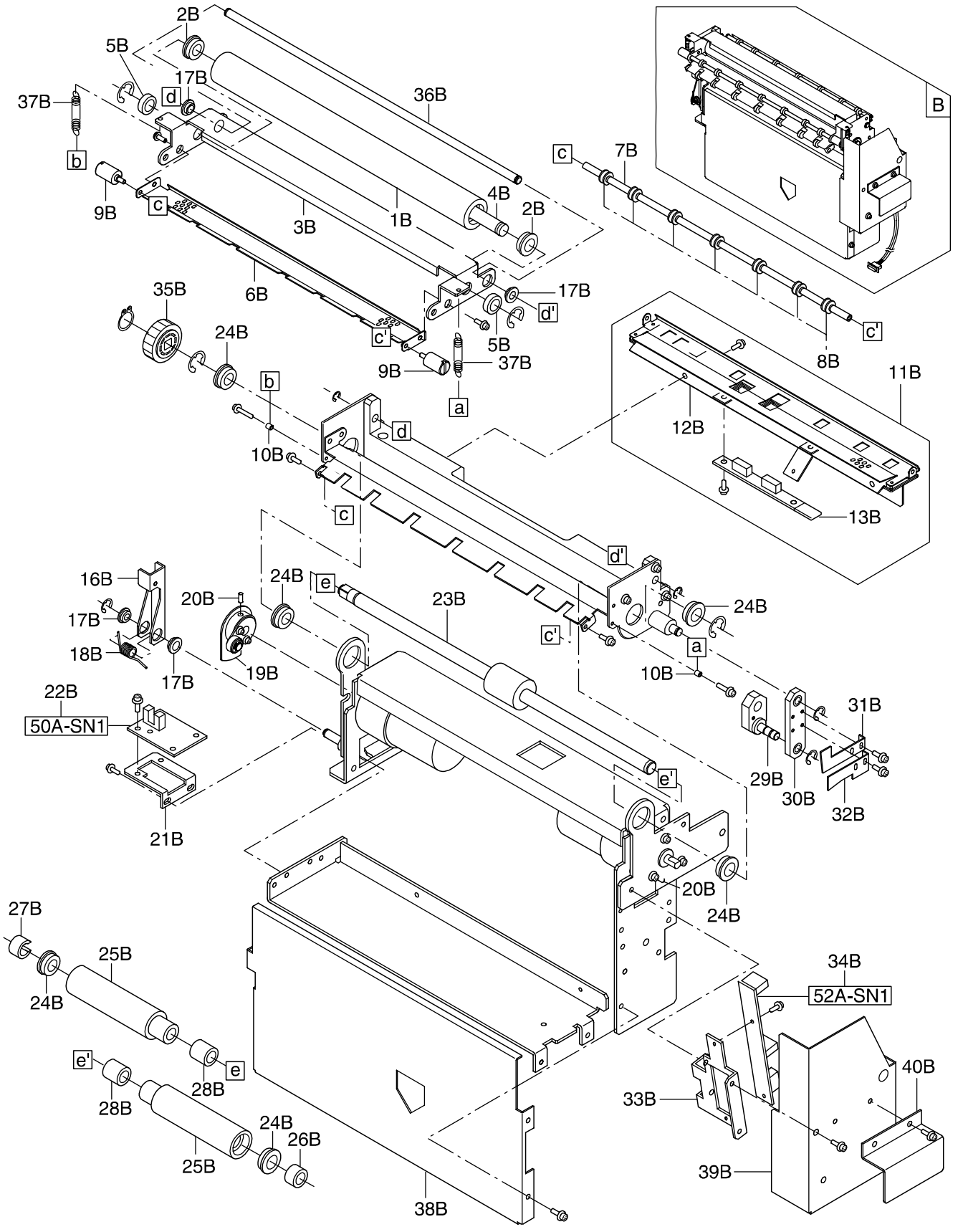
DPU Digital Print Unit 8508/400
Power Supply Unit 51D-0701

Pos. Item no. Pos.	Teil-Nr. Part no. No. de ref.	ABC Code	Bezeichnung Description Désignation	Bemerkungen Remarks Remarques
22	P5A-E4405		Abdeckung, vollständig Cover Sub assy Capot, compl.	
23	PA4-43530		Sensorplatine Y176D1 PCB assy Y176D1 Platine de capteur Y176D1	
24	PA4-43535		Sensorplatine Y177PD1 PCB assy Y177PD1 Platine de capteur Y177PD1	
25	P4 -6072		Schnappverschluß B-1047 UI Snap lock B-1047 UI Obturateur B-1047 UI	
26	P5A-E4504		51D-EXI Gedruckte Schaltung 51D-EXI PCB assy 51D-EXI Circuit imprimé	für 53A-CPU for 53A-CPU pour 53A-CPU
27	P4 -5904		Antistatikbürste Brush Brosse anti-statique	
A (T)	P5A-E4605		Netzteil (CE) Power supply unit (CE) Bloc secteur (CE)	
A (U)	P5A-E4615		Netzteil (UL) Power supply unit (UL) Bloc secteur (UL)	
1A	P4 -1521		Mikroschalter SS-01GL Micro switch SS-01GL Microcommutateur SS-01GL	
2A	P4 -4199(2/1)		Buchse für Netzteilanschluß (10BASE-T) Jack for power supply connection (10BASE-T) Jack pour connexion au bloc secteur (10BASE-T)	
3A	P4 -4200		Relais G7L-2A-T (6VDC) Relay G7L-2A-T (6VDC) Relais G7L-2A-T (6VDC)	
4A	P5A-E4587		Kabelbaum WHD05N19, vollständig Wire harness WHD05N19 assy Câble WHD05N19, compl.	
5A	P4 -2944(7/1)		Überlastschalter W28XQ1A-4 Circuit protector W28XQ1A-4 Interrupteur de surcharge W28XQ1A-4	
6A	P4 -2944(8/1)		Überlastschalter W28XQ1A-5 Circuit protector W28XQ1A-5 Interrupteur de surcharge W28XQ1A-5	
7A	P4 -4202		Netzteil PS HWM600-32 Jack for power supply connection PS HWM600-32 Jack pour connexion de bloc secteur PS HWM600-32	
8A	P4 -4242		AC Netzanschluß (Eingang) FN9222-10-06 AC Connection to the power supply (inlet) FN9222-10-06 AC Connexion au bloc secteur (entrée) FN9222-10-06	
9A	P4 -4203		AC Netzanschluß (Ausgang) AC Connection to the power supply (outlet) AC Connexion au bloc secteur (sortie)	
10A	P4 -4243		Hauptschalter CP30-N-108-10 Breaker ICP30-N-108-10 Commuteur principal ICP30-N-108-10	
F	P5A-E4192		FOCRT-Block (AG850) DPU Engine assy (AG850) Bloc FOCRT (AG850)	 see FOCRT
G	Type 8508/410		IP Image Prozessor IP Image Processor IP Image Processor	

Umlenkrollen-Einheit / Turn Roller Unit / Galet de renvoi 51D-0103

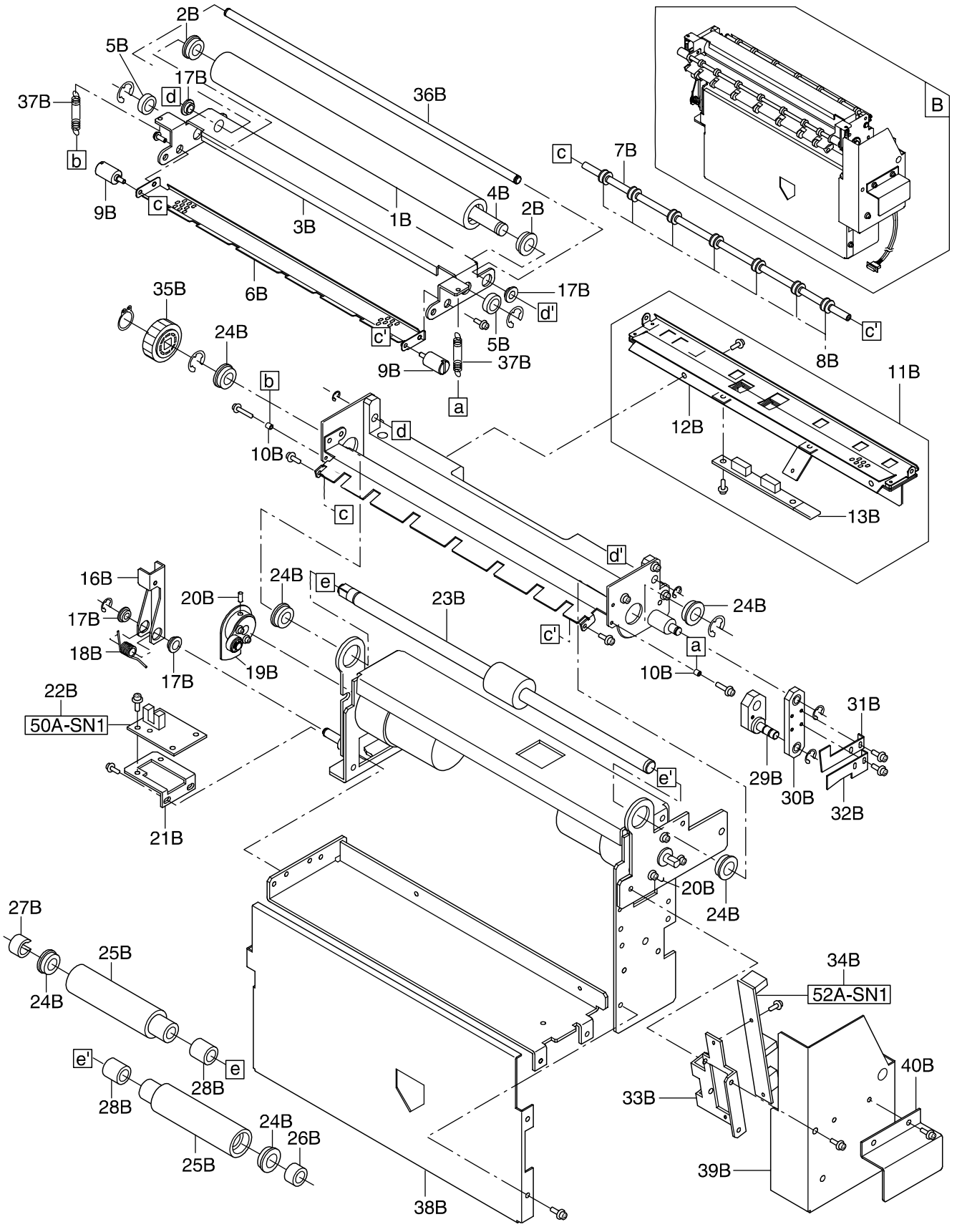


dpu29.cdr

Umlenkrollen-Einheit / Turn Roller Unit / Galet de renvoi 51D-0103

Pos. Item no. Pos.	Teil-Nr. Part no. No. de ref.	ABC Code	Bezeichnung Description Désignation	Bemerkungen Remarks Remarques
B	P5A-E4000		Umlenkrollen-Einheit, vollständig Turn roller unit assy Galet de renvoi, compl.	
1B	P4 -E4057		Rolle Roller Rouleau	
2B	P4 -5981(2/1)		Lager Bearing Palier	MF148ZZMC3D4MS MF148ZZMC3D4MS MF148ZZMC3D4MS
3B	P3 -E4002		Platte 1 Plate 1 Plaque	
4B	P4 -E4003		Achse Shaft Axe	
5B	P4 -E4066		Lagerbuchse Collar Douille de palier	
6B	P3 -E4004		Führung Guide Guidage	
7B	P3 -E4005		Achse M2.5 Shaft M2.5 Axe M2.5	
8B	P4 -E4006		Rolle Roller Rouleau	
9B	P4 -E4007		Stift Pin Broche	
10B	P4 -5470(19/1)		Abstandshalter Spacer Ecarteur	
11B	P5A-E4025		Führung (Ausgang), vollständig Guide (Out) assy Guidage (sortie), compl.	
12B	P3A-E4026		Führung, vollständig Guide assy Guidage, compl.	
13B	P5A-88188	83E9T	50A-SN3 Gedruckte Schaltung 50A-SN3 PCB assy 50A-SN3 Circuit imprimé	
16B	P4 -E4012		Hebel Lever Manette	
17B	P4 -6069		Lager B-F5-53 Bearing B-F5-53 Palier B-F5-53	
18B	P4 -E4013		Feder Spring Ressort	
19B	P4A-E4044		Nocke N, vollständig Cam N assy Came N, compl.	
20B	P4 -5682(1/1)		Segmentscheibe M3x4 Set screw M3x4 Disque M3x4	
21B	P4 -E4016		Winkel Plate Equerre	
22B	P5A-88180	83E1C	50A-SN1 Gedruckte Schaltung 50A-SN1 PCB assy 50A-SN1 Circuit imprimé	

Umlenkrollen-Einheit / Turn Roller Unit / Galet de renvoi 51D-0103



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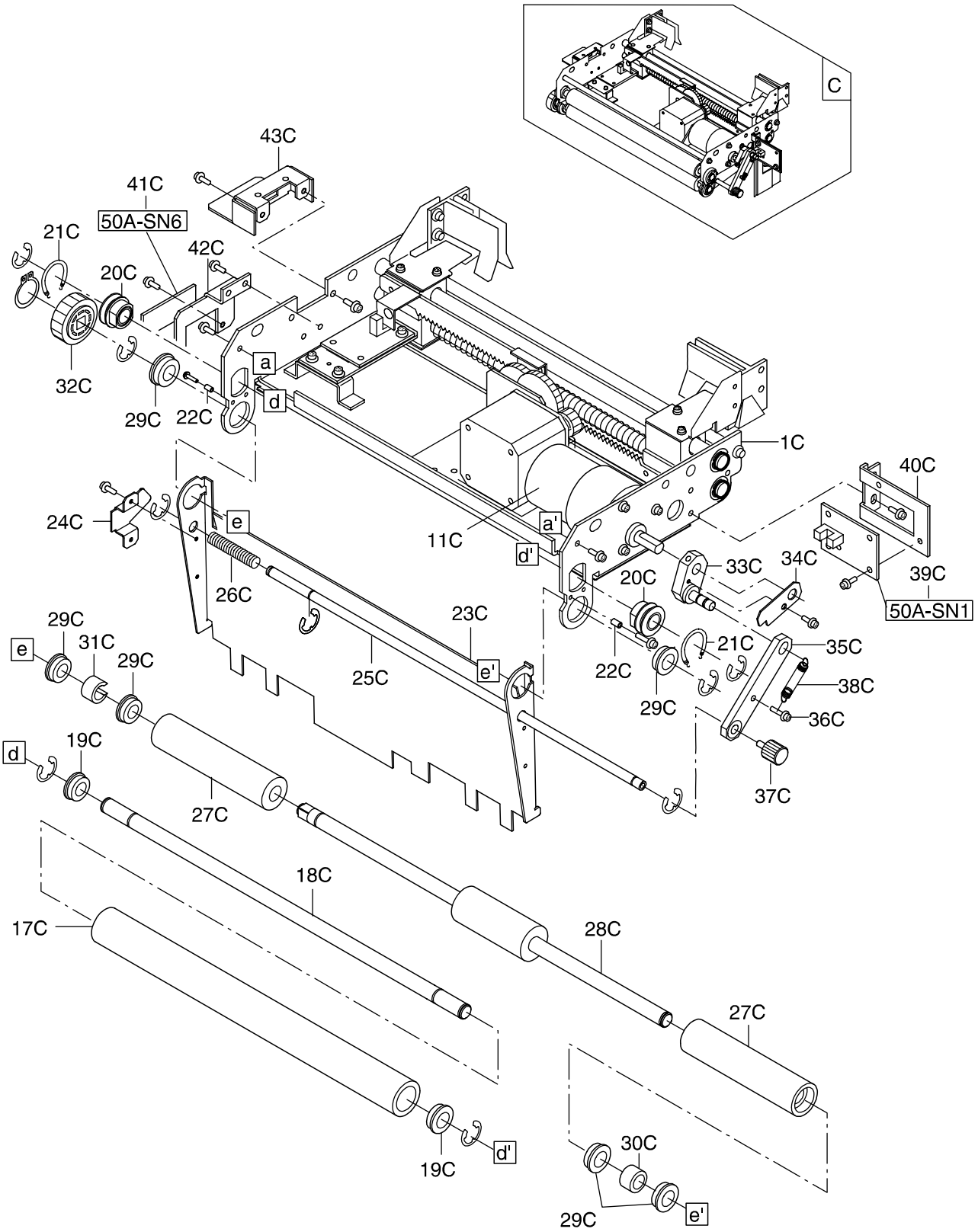
Umlenkrollen-Einheit / Turn Roller Unit / Galet de renvoi 51D-0103

Pos. Item no. Pos.	Teil-Nr. Part no. No. de ref.	ABC Code	Bezeichnung Description Désignation	Bemerkungen Remarks Remarques
23B	P3 -E4454		Rolle Roller Rouleau	
24B	P4 -5002(21/1)		Lager MF148ZZ Bearing MF148ZZ Palier MF148ZZ	
25B	P4 -E4471		Hülse Sleeve Baque	
26B	P4 -E4068		Abstandshalter Spacer Ecarteur	
27B	P4 -E4049		Abstandshalter Spacer Ecarteur	
28B	P4 -E4455		Abstandshalter Spacer Ecarteur	
29B	P4A-E4050		Nocke T, vollständig Cam T assy Came T, compl.	
30B	P4A-E4052		Hebel T, vollständig Lever T assy Manette T, compl.	
31B	P4 -E4054		Mitnehmer T 1 Dog T 1 Entraîneur T 1	
32B	P4 -E4023		Mitnehmer T 2 Dog T 2 Entraîneur T 2	
33B	P4 -E4055		Winkel Plate Equerre	
34B	P4A-E1753		52A-SN1 Gedruckte Schaltung Typ A 52A-SN1 PCB assy Type A 52A-SN1 Circuit imprimé Type A	
35B	P3 -88600	82D7C	Kupplung (Eingang) Coupling (In) Couplage (entrée)	
36B	P4 -E4038		Achse Shaft Axe	
37B	P4 -E4040		Feder Spring Ressort	
38B	P3 -E4042		Papierführung Paper guide Guidage papier	
39B	P3 -E4056		Abdeckung Cover Capot	
40B	P4 -E4213		Platte 4 Plate 4 Capot 4	

Papierführungs-Einheit / Paper Guide Unit / Guidage papier 51D-0105



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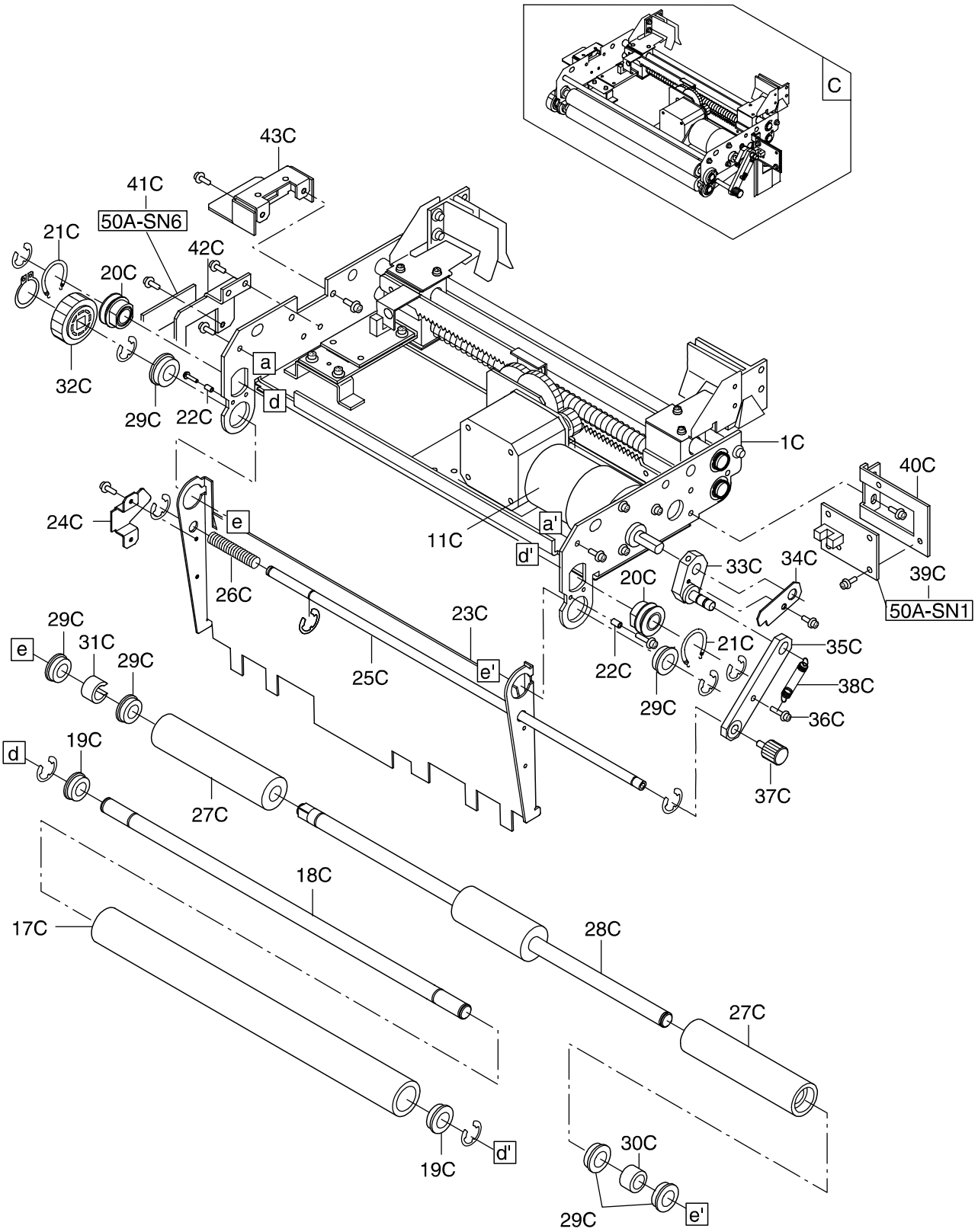
Papierführungs-Einheit / Paper Guide Unit / Guidage papier 51D-0105

Pos. Item no. Pos.	Teil-Nr. Part no. No. de ref.	ABC Code	Bezeichnung Description Désignation	Bemerkungen Remarks Remarques
C	P5A-E4100		Papierführungs-Einheit Paper guide unit Guidage papier	
1C	P1A-E4103		Grundplatte 1, vollständig Plate 1 assy Plaque de base 1, compl.	
11C	P4 -3788		DC Motor DC Motor Moteur DC	DME33S37G-129 DME33S37G-129 DME33S37G-129
17C	P4 -86364	9BMCY	Rolle Roller Rouleau	
18C	P4 -86365		Achse Shaft Axe	
19C	P4 -5981(2/1)		Lager Bearing Palier	MF148ZZMC3D4MS MF148ZZMC3D4MS MF148ZZMC3D4MS
20C	P4 -71185	9BK6F	Lagerbuchse C Collar C Douille de palier C	
21C	P4 -E3342		Zugfeder Spring Ressort de traction	
22C	P4 -5470(19/1)		Abstandshalter Spacer Ecarteur	
23C	P2 -E4120		Umlenkung Turn guide Guidage de renvoi	
24C	P4 -E4121		Mitnehmer 2 Dog 2 Entraîneur 2	
25C	P3 -E4127		Achse Shaft Axe	
26C	P4 -E4188		Druckfeder Spring Ressort à pression	
27C	P4 -E4067		Hülse Sleeve Baque	
28C	P3 -E4195		Rolle Roller Rouleau	
29C	P4 -5002(21/1)		Lager MF148ZZ Bearing MF148ZZ Palier MF148ZZ	
30C	P4 -E4068		Abstandshalter Spacer Ecarteur	
31C	P4 -E4049		Abstandshalter Spacer Ecarteur	
32C	P3 -88600	82D7C	Kupplung (Eingang) Coupling (In) Couplage (entrée)	
33C	P4A-E4050		Nocke T, vollständig Cam T assy Came T, compl.	
34C	P4 -E4123		Mitnehmer 3 Dog 3 Entraîneur 3	

Papierführungs-Einheit / Paper Guide Unit / Guidage papier 51D-0105



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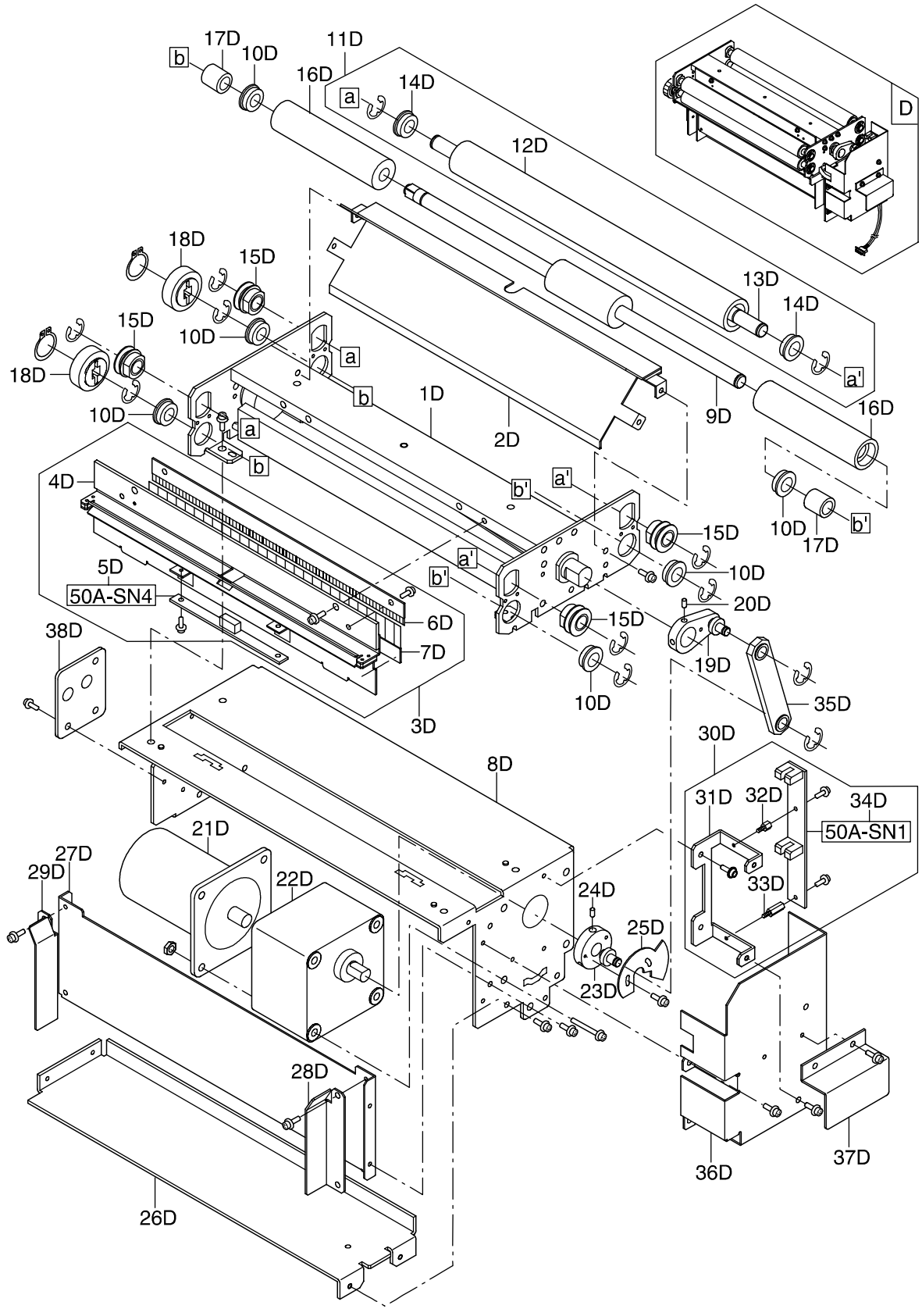
Papierführungs-Einheit / Paper Guide Unit / Guidage papier 51D-0105

Pos. Item no. Pos.	Teil-Nr. Part no. No. de ref.	ABC Code	Bezeichnung Description Désignation	Bemerkungen Remarks Remarques
35C	P4A-E4129		Hebel, vollständig Lever assy Manette, compl.	
36C	P4 -5461(8/1)		Schraube M3x12 Screw M3x12 Vis M3x12	
37C	P4 -E4128		Rändelschraube Knob Vis moletée	
38C	P4 -E4144		Zugfeder Spring Ressort de traction	
39C	P5A-88180	83E1C	50A-SN1 Gedruckte Schaltung 50A-SN1 PCB assy 50A-SN1 Circuit imprimé	
40C	P4 -E4137		Winkel Plate Equerre	
41C	P5A-88834		50A-SN6 Gedruckte Schaltung 50A-SN6 PCB assy 50A-SN6 Circuit imprimé	
42C	P4 -E4138		Winkel Plate Equerre	
43C	P4 -E4139		Winkel Bracket Equerre	

Schneideeinheit / Cutter Unit / Couteau 51D-0107



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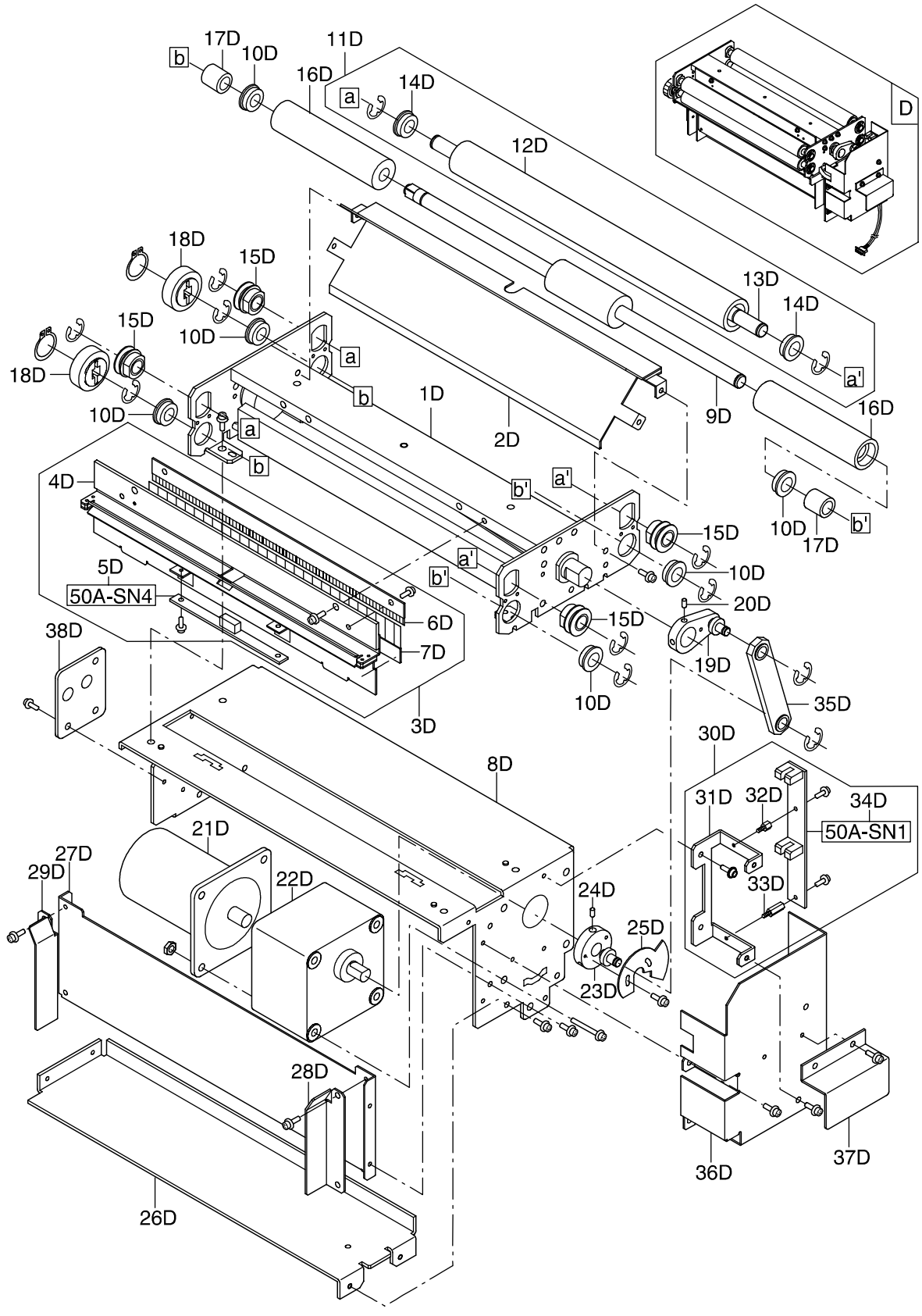
Schneideeinheit / Cutter Unit / Couteau 51D-0107

Pos. Item no. Pos.	Teil-Nr. Part no. No. de ref.	ABC Code	Bezeichnung Description Désignation	Bemerkungen Remarks Remarques
D	P5A-E4200		Schneideeinheit Cutter unit Couteau	
1D	P4 -6073		Messerblock, vollständig Cutter assy Bloc de couteau, compl.	
2D	P2 -E4201		Führung 1 (Messer) Guide 1 (Cutter) Guidage 1 (couteau)	
3D	P5A-E4215		Führung 2, vollständig Guide 2 Sub assy Couteau 2, compl.	
4D	P2 -E4202		Führung 2 (Messer) Guide 2 (Cutter) Guidage 2 (couteau)	
5D	P5A-88192	83ETW	50A-SN4 Gedruckte Schaltung 50A-SN4 PCB assy 50A-SN4 Circuit imprimé	
6D	P4 -6066		Bürste Brush Brosse	
7D	P4 -6067		Bürste Brush Brosse	
8D	P1 -E4203		Rahmen (Messer) Frame (Cutter) Bâti (couteau)	
9D	P3 -E4195		Rolle Roller Rouleau	
10D	P4 -5002(21/1)		Lager MF148ZZ Bearing MF148ZZ Palier MF148ZZ	
11D	P5A-E0171		Rolle, vollständig Roller Sub assy Roulea, compl.	
12D	P4 -86364	9BMCY	Rolle Roller Rouleau	
13D	P4 -86365		Achse Shaft Axe	
14D	P4 -5981(2/1)		Lager Bearing Palier	MF148ZZMC3D4MS MF148ZZMC3D4MS MF148ZZMC3D4MS
15D	P4 -71185	9BK6F	Lagerbuchse C Collar C Douille de palier C	
16D	P4 -E4067		Hülse Sleeve Baque	
17D	P4 -E4455		Abstandshalter Spacer Ecarteur	
18D	P3 -88600	82D7C	Kupplung (Eingang) Coupling (In) Couplage (entrée)	
19D	P4A-E4218		Hebel, vollständig Lever assy Manette, compl.	
20D	P4 -5682(12/1)		Gewindestift M4x6 Screw M4x6 Vis sans tête M4x6	

Schneideeinheit / Cutter Unit / Couteau 51D-0107



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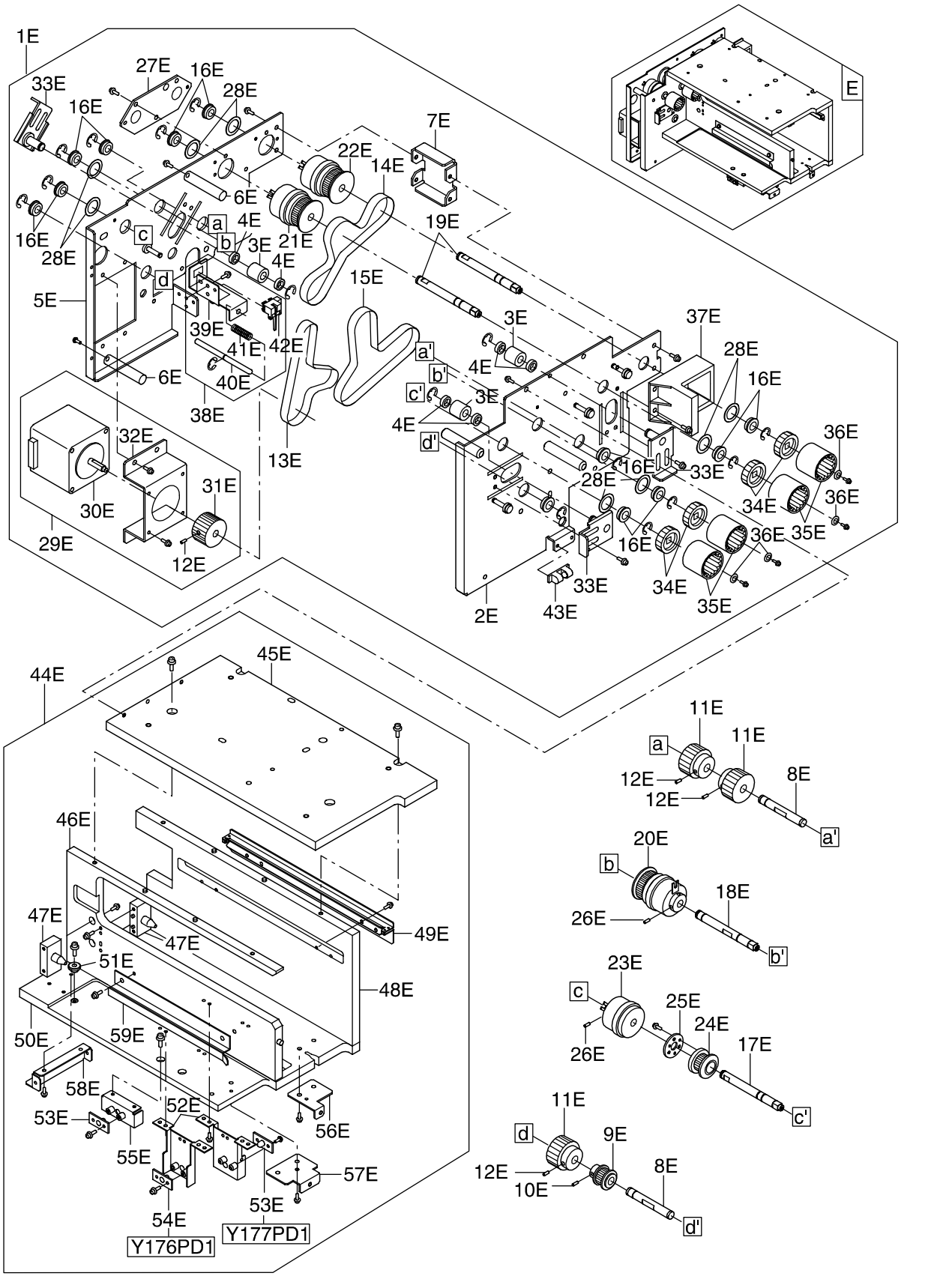
Schneideeinheit / Cutter Unit / Couteau 51D-0107

Pos. Item no. Pos.	Teil-Nr. Part no. No. de ref.	ABC Code	Bezeichnung Description Désignation	Bemerkungen Remarks Remarques
21D	P5A-E4221		Motor, vollständig Motor assy Moteur, compl.	
22D	P4 -5892	9BK26	Getriebekopf 6H18 Gear head 6H18 Tête d'engrenage 6H18	
23D	P4A-E4204		Nocke, vollständig Cam assy Came, compl.	
24D	P4 -5682(13/1)		Gewindestift M4x8 Set screw M4x8 Vis sans tête M4x8	
25D	P4 -E4206		Segmentscheibe Dog Disque	
26D	P3 -E4207		Grundplatte (Messer) Base (cutter) Plaque de base	
27D	P3 -E4210		Platte 1 Plate 1 Plaque 1	
28D	P4 -E4216		Platte 5 Plate 5 Plaque 5	
29D	P4 -E4217		Platte 6 Plate 6 Plaque 6	
30D	P5A-E4220		Platte 2, vollständig Plate 2 Sub assy Plaque 2, compl.	
31D	P3-86488		Platte 2 Plate 2 Plaque 2	
32D	P4 -4043(2/1)		Abstandshalter M2 L=4 Spacer M2 l=4 Ecarteur M2 l=4	2SQ-4 2SQ-4 2SQ-4
33D	P4 -4043(8/1)		Abstandshalter M2 L=10 Spacer M2 l=10 Ecarteur M2 l=10	2SQ-10 2SQ-10 2SQ-10
34D	P4A-E1753		50A-SN1 Gedruckte Schaltung Typ A 50A-SN1 PCB assy Type A 50A-SN1 Circuit imprimé Type A	
35D	P4A-E4208		Hebel, vollständig Lever assy Manette, compl.	
36D	P3 -E4212		Platte 3 Plate 3 Plaque 3	
37D	P4 -E4213		Platte 4 Plate 4 Plaque 4	
38D	P4 -E4219		Platte 7 Plate 7 Plaque 7	

Papiertransport-Einheit / Paper Drive Unit / Transport papier 51D-0120



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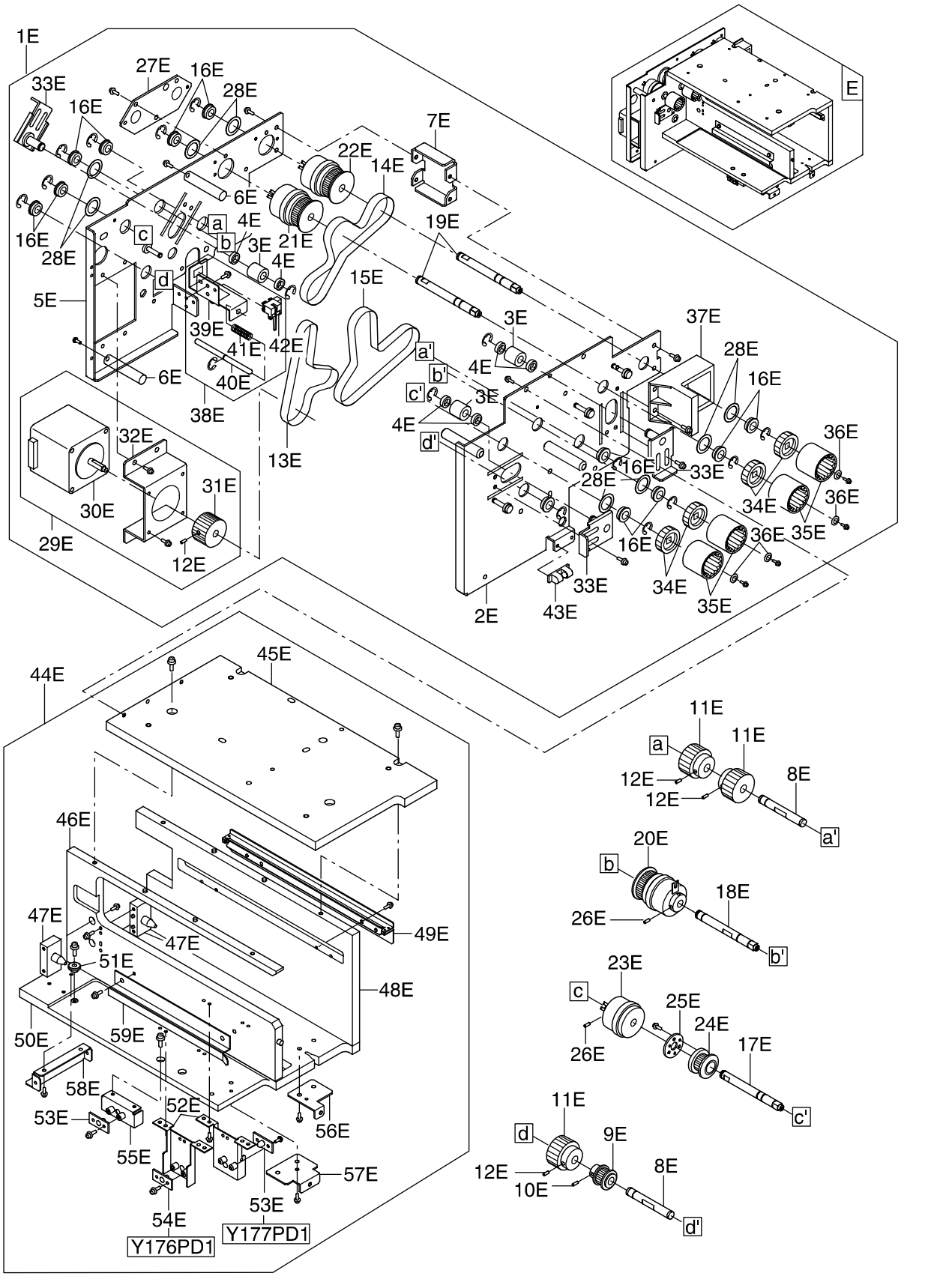
Papiertransport-Einheit / Paper Drive Unit / Transport papier 51D-0120

Pos. Item no. Pos.	Teil-Nr. Part no. No. de ref.	ABC Code	Bezeichnung Description Désignation	Bemerkungen Remarks Remarques
E	P5A-E4230		Papiertransport-Einheit Paper drive unit Transport papier	
1E	P5A-E4257		Papiertransport, vollständig Paper drive Sub assy Transport papier, compl.	
2E	P3A-E4231		Rahmen A, vollständig Frame A assy Bâti A, compl.	
3E	P4 -E0172		Rolle Roller Rouleau	
4E	P4 -6010(2/1)		Lager Bearing Palier	MR84ZZMC3D4MS MR84ZZMC3D4MS MR84ZZMC3D4MS
5E	P3A-E4233		Rahmen B, vollständig Frame B assy Bâti B, compl.	
6E	P4 -E0062		Stange B Stay B Tige B	
7E	P4 -E0054		Abstandshalter Stay Ecarteur	
8E	P4 -86094		Achse Shaft Axe	
9E	P4 -86028	9BMV2	Riemenscheibe 30 Pulley 30 Disque à courroie 30	
10E	P4 -5682(11/1)		Gewindestift M4x5 Set screw M4x5 Vis sans tête M4x5	
11E	P4 -86029	9BMW4	Riemenscheibe 48 Pulley 48 Disque à courroie 48	
12E	P4 -5682(13/1)		Gewindestift M4x8 Set screw M4x8 Vis sans tête M4x8	
13E	P4 -5584(23/1)		Riemen B150MXL9.5 Belt B150MXL9.5 Courroie B150MXL9.5	
14E	P4 -5584(25/1)		Riemen B175MXL9.5 Belt B175MXL9.5 Courroie B175MXL9.5	
15E	P4 -5584(25/1)		Riemen B180MXL9.5 Belt B180MXL9.5 Courroie B180MXL9.5	
16E	P4 -5002(21/1)		Lager MF148ZZ Bearing MF148ZZ Palier MF148ZZ	
17E	P3 -E0011		Achse Shaft Axe	
18E	P3 -E0012		Achse Shaft Axe	
19E	P3 -E4238		Achse Shaft Axe	
20E	P5A-E4269		Magnetkupplung, vollständig (CF) Clutch assy (CF) Embrayage, compl. (CF)	

Papiertransport-Einheit / Paper Drive Unit / Transport papier 51D-0120



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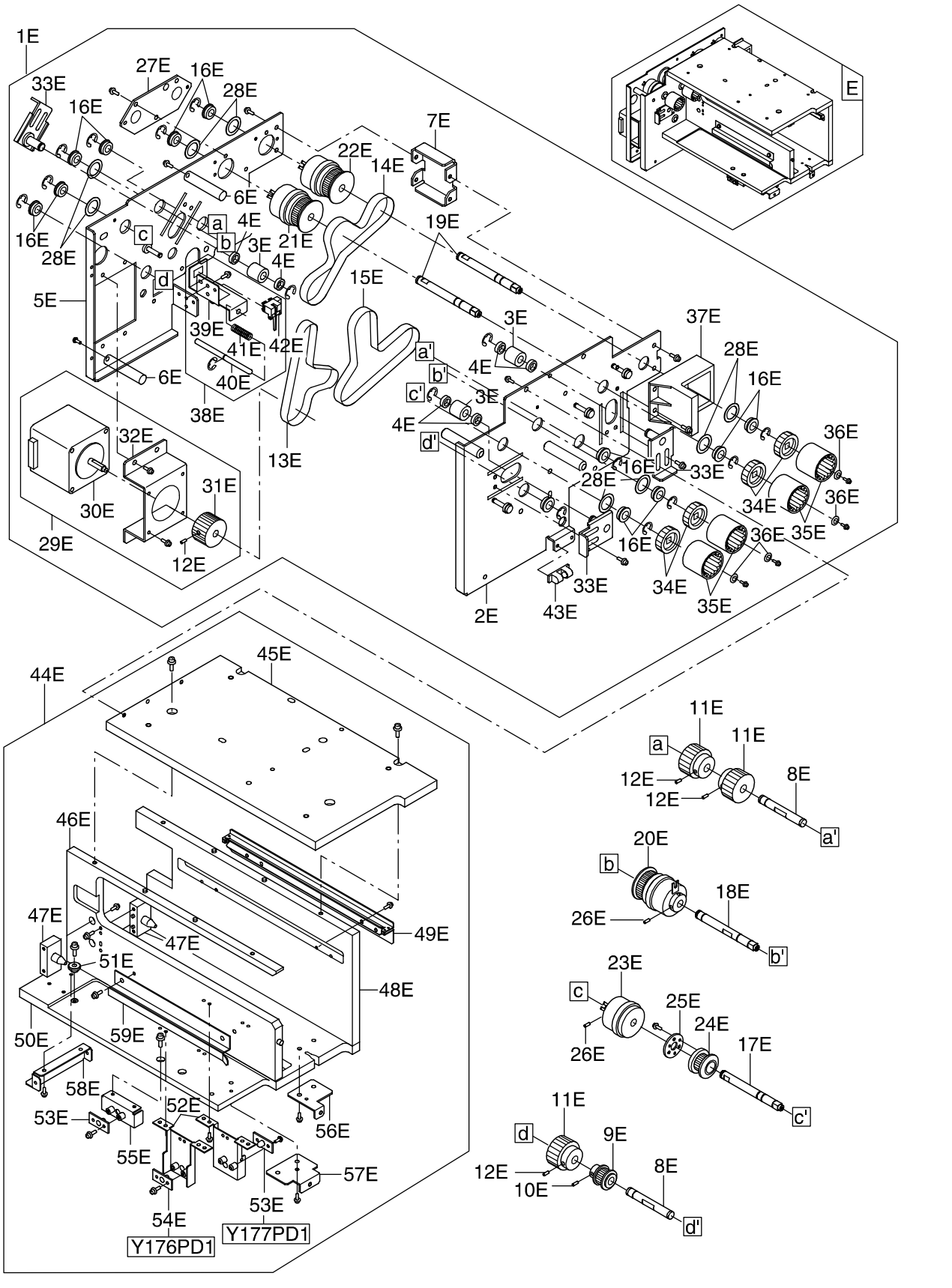
Papiertransport-Einheit / Paper Drive Unit / Transport papier 51D-0120

Pos. Item no. Pos.	Teil-Nr. Part no. No. de ref.	ABC Code	Bezeichnung Description Désignation	Bemerkungen Remarks Remarques
21E	P5A-E4270		Magnetkupplung, vollständig (CB) Clutch assy (CB) Embrayage, compl. (CB)	
22E	P5A-E4271		Magnetkupplung, vollständig (MC) Clutch assy (MC) Embrayage, compl. (MC)	
23E	P5A-E4273		Magnetkupplung, vollständig (TR) Clutch assy (TR) Embrayage, compl. (TR)	
24E	P44-E0058		Riemenscheibe 30 Pulley 30 Disque à courroie 30	
25E	P4 -E0010		Scheibe Plate Rondelle	
26E	7.0214.106.28	UCFVS	Gewindestift M3x5 Set screw M3x5 Vis sans tête M3x5	
27E	P4 -E4239		Platte 2 Plate 2 Plaque 2	
28E	P4 -E0006		Abstandshalter Spacer Ecarteur	
29E	P5A-E4260		Motor, vollständig Motor assy Moteur, compl.	
30E	P4 -4034		Schrittmotor KH-56KM2-020 Step motor KH-56KM2-020 Moteur pas à pas KH-56KM2-020	
31E	P4 -86032	9BM1D	Riemenscheibe 48 (Motor) Pulley 48 (motor) Disque à courroie 48 (moteur)	
32E	P4 -86110		Motorhalterung Motor holder Support moteur	
33E	P4A-86083		Platte A, vollständig Plate A assy Plaque A, compl.	
34E	P3 -88600	82D7C	Kupplung (Eingang) Coupling (In) Couplage (entrée)	
35E	P3 -88601	82D6A	Kupplung (Ausgang) Coupling (Out) Couplage (sortie)	
36E	P4 -E4757		Scheibe Washer Rondelle	
37E	P5A-E0037		Block, vollständig Block Sub assy Bloc, compl.	
38E	P5A-E4261		Sensoreinheit, vollständig Plate 1 Sub assy Unité capteur, compl.	
39E	P3 -E4235		Platte (Sensor) Plate 1 (Sensor) Plaque (capteur)	
40E	P4A-E4236		Achse (Sensor) Shaft (Sensor) Axe (capteur)	
41E	P4 -E4237		Feder (Sensor) Spring (Sensor) Ressort (capteur)	

Papiertransport-Einheit / Paper Drive Unit / Transport papier 51D-0120



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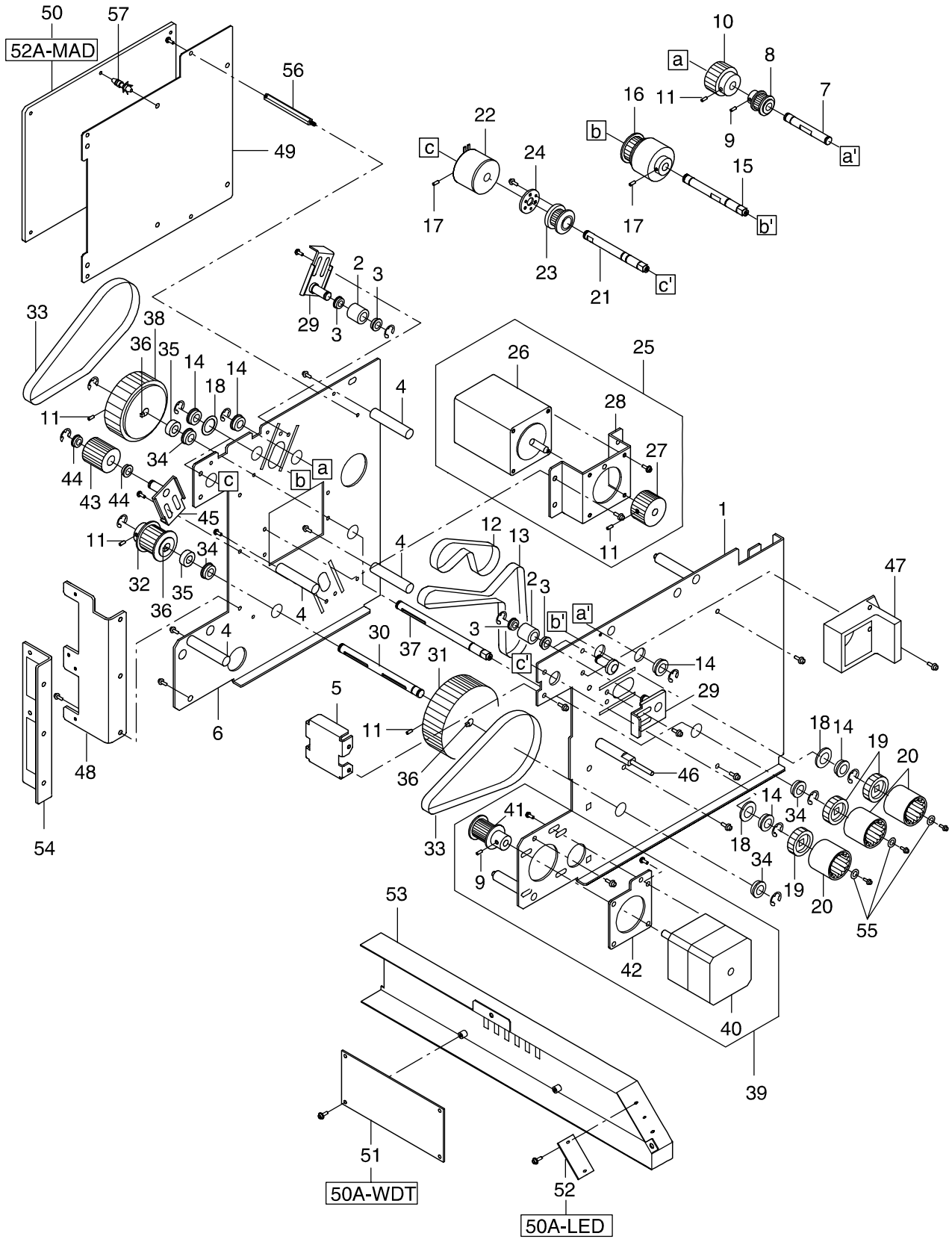
Papiertransport-Einheit / Paper Drive Unit / Transport papier 51D-0120

Pos. Item no. Pos.	Teil-Nr. Part no. No. de ref.	ABC Code	Bezeichnung Description Désignation	Bemerkungen Remarks Remarques
42E	P4 -3815		Photosensor Photo sensor Photo capteur	
43E	P4 -5016		Schnappverschluß Catch Arrêtage	
44E	P5A-E4240		I-Basis, vollständig I-Base Sub assy I-Base, compl.	
45E	P2 -E4241		Basis (B-1) Base (B-1) Base (B-1)	
46E	P2 -E4242		Basis (B-2) Base (B-2) Base (B-2)	
47E	P5A-E4263		Block (B-5) Sub, vollständig Block (B-5) Sub assy Bloc (B-5) Sub, compl.	
48E	P2 -E4243		Basis (B-3) Base (B-3) Base (B-3)	
49E	P2 -E4248		Führung (Basis) Guide (base) Guidage (base)	
50E	P2 -E4244		Basis (B-4) Base (B-4) Base (B-4)	
51E	P4 -E4245		Stift Pin Broche	
52E	P5A-E4249		Winkel S Bracket S Equerre S	
53E	P4A-43535		Y177PD1 Gedruckte Schaltung Y177PD1 PCB assy Y177PD1 Circuit imprimé	
54E	P4A-43530		Y176PD1 Gedruckte Schaltung Y176PD1 PCB assy Y176PD1 Circuit imprimé	
55E	P4A-E4254		B-Winkel, vollständig B-Bracket assy B- Equerre, compl.	
56E	P4 -E4246		Winkel 1 (Basis) Bracket 1 (Base) Equerre 1 (base)	
57E	P4 -E4247		Winkel 2 (Basis) Bracket 2 (Base) Equerre 2 (base)	
58E	P3 -E4256		Platte Plate Plaque	
59E	P3 -E4065		Führung Guide Guidage	

Magazinantrieb / Magazine Drive Unit / Entraînement de cassette 51D-0113



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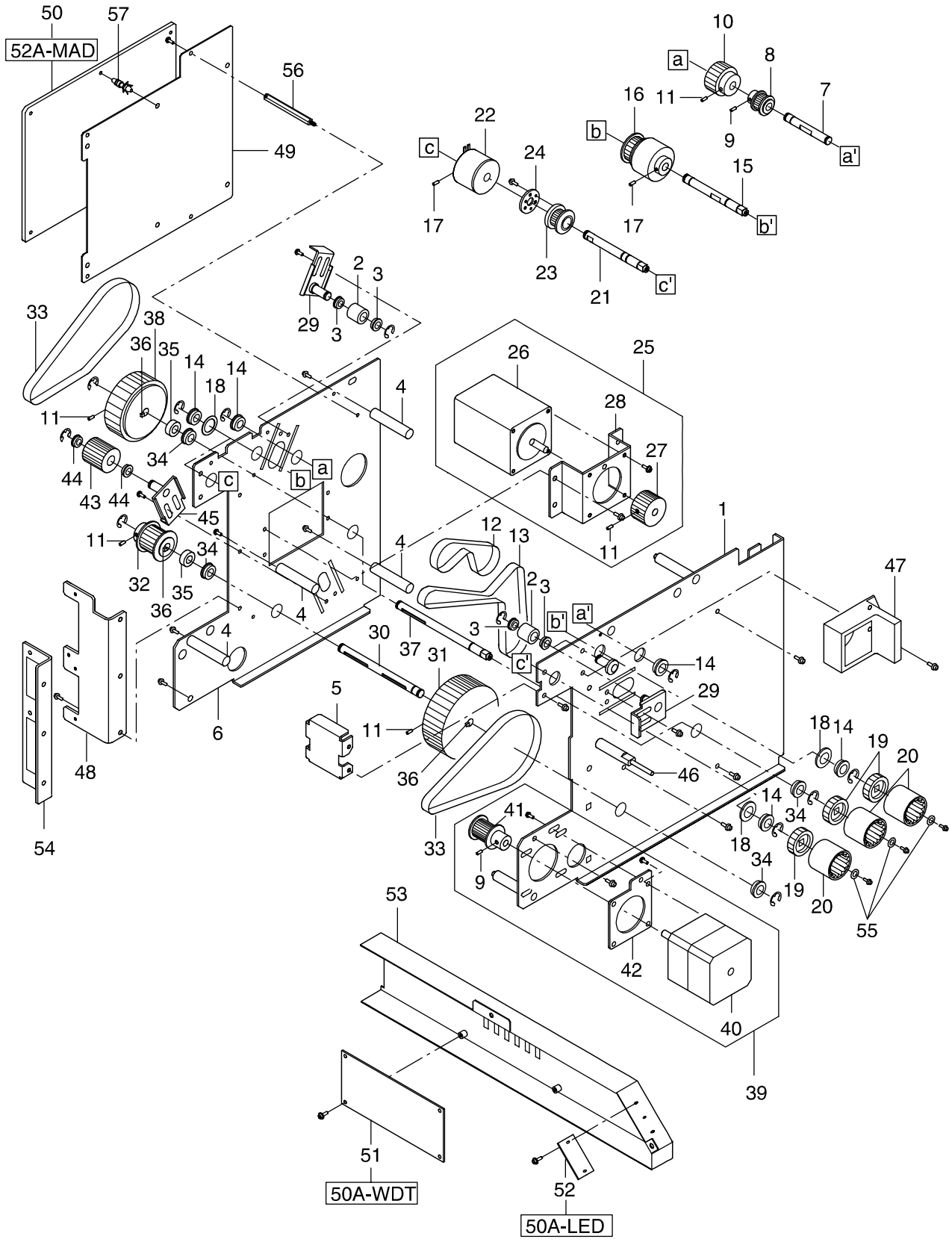
Magazinantrieb / Magazine Drive Unit / Entraînement de cassette 51D-0113

Pos. Item no. Pos.	Teil-Nr. Part no. No. de ref.	ABC Code	Bezeichnung Description Désignation	Bemerkungen Remarks Remarques
0	P5A-E4299		Magazinantrieb, Typ A Magazine drive unit, Type A Entraînement de cassette, Type A	
1	P3A-E0060		Rahmen L (A), vollständig Frame L (A) assy Bâti L (A), compl.	
2	P4 -E0172		Rolle Roller Rouleau	
3	P4 -6010(2/1)		Lager Bearing Palier	MR84ZZMC3D4MS MR84ZZMC3D4MS MR84ZZMC3D4MS
4	P4 -E0062		Stange B Stay B Tige B	
5	P4 -E0054		Stange Stay Tige	
6	P1 -E0063		Rahmen L (B) Frame L (B) Bâti L (B)	
7	P4 -86094		Achse Shaft Axe	
8	P4 -86028	9BMV2	Riemenscheibe 30 Pulley 30 Disque à courroie 30	
9	P4 -5682(11/1)		Gewindestift M4x5 Set screw M4x5 Vis sans tête M4x5	
10	P4 -86029	9BMW4	Riemenscheibe 48 Pulley 48 Disque à courroie 48	
11	P4 -5682(13/1)		Gewindestift M4x8 Set screw M4x8 Vis sans tête M4x8	
12	P4 -5584(14/1)	82DQD	Zahniemen Belt Courroie dentée	118MXL9.5 118MXL9.5 118MXL9.5
13	P4 -5584(15/1)	82DSH	Zahniemen Belt Courroie dentée	232MXL9.5 232MXL9.5 232MXL9.5
14	P4 -5002(21/1)		Lager MF148ZZ Bearing MF148ZZ Palier MF148ZZ	
15	P3 -E0012		Achse Shaft Axe	
16	P5A-E0173		Magnetkupplung, vollständig Clutch assy Embrayage, compl.	
17	7.0214.106.28	UCFVS	Gewindestift M3x5 Set screw M3x5 Vis sans tête M3x5	
18	P4 -E0006		Abstandshalter Spacer Ecarteur	
19	P3 -88600	82D7C	Kupplung (Eingang) Coupling (In) Couplage (entrée)	
20	P3 -88601	82D6A	Kupplung (Ausgang) Coupling (Out) Couplage (sortie)	

Magazinantrieb / Magazine Drive Unit / Entraînement de cassette 51D-0113

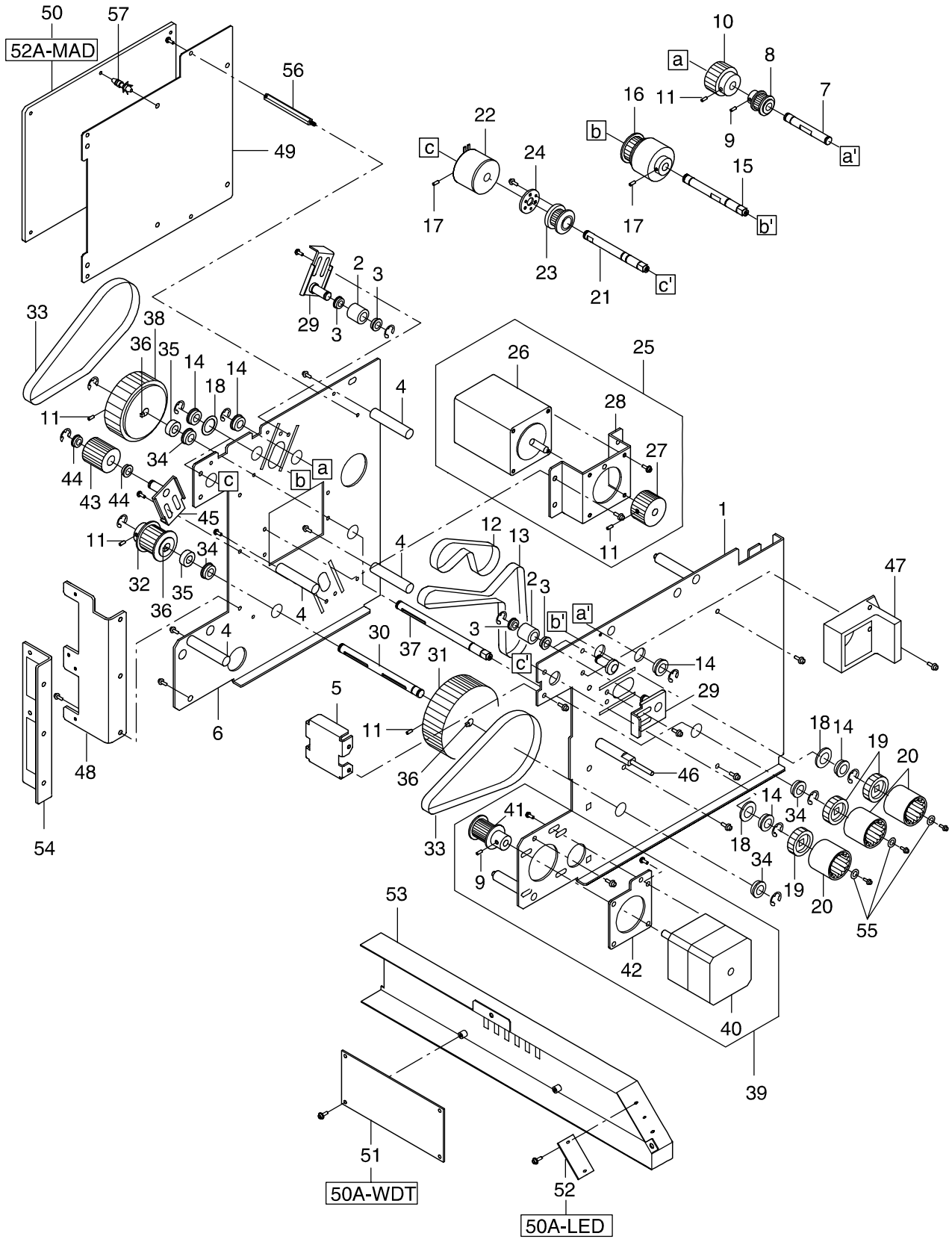


dpu33.cdr

Magazinantrieb / Magazine Drive Unit / Entraînement de cassette 51D-0113

Pos. Item no. Pos.	Teil-Nr. Part no. No. de ref.	ABC Code	Bezeichnung Description Désignation	Bemerkungen Remarks Remarques
21	P3 -E0011		Achse Shaft Axe	
22	P5A-E0057		Magnetkupplung, vollständig Clutch assy Embrayage, compl.	
23	P4A-E0058		Riemenscheibe 30 Pulley 30 Disque à courroie 30	
24	P4 -E0010		Platte Plate Plaque	
25	P5A-E0007		Motor (Rolle), vollständig Motor (roller) assy Moteur (rouleau), compl.	
26	P4 -4038		Schrittmotor Step motor Moteur pas à pas	KH-56QM2-008 KH-56QM2-008 KH-56QM2-008
27	P4 -86032	9BM1D	Riemenscheibe 48 (Motor) Pulley 48 (motor) Disque à courroie 48 (moteur)	
28	P4 -86110		Motorhalterung Motor holder Support moteur	
29	P4A-86083		Platte A, vollständig Plate A assy Plaque A, compl.	
30	P3 -E0015		Achse Shaft Axe	
31	P4 -8518		Riemenscheibe 48 Pulley 48 Disque à courroie 48	
32	P4 -8519		Riemenscheibe 16 Pulley 16 Disque à courroie 16	
33	P4 -5569(33/1)		Riemen 146XL075 Belt 146XL075 Courroie 146XL075	
34	P4 -5002(3/1)		Lager Bearing Palier	F688ZZS (NSK) F688ZZS (NSK) F688ZZS (NSK)
35	P4 -E0014		Lagerbuchse Collar Douille de palier	
36	P4 -5957(2/1)		Paßfeder 3x3 L=28 Parallel key 3x3 L=28 Ressort d'assemblage 3x3 L=28	
37	P3 -E0009		Achse Shaft Axe	
38	P4 -8517		Riemenrad40 Pulley 40 Disque à courroie 40	
39	P5A-E0005		Motor (Kassettenkern), vollständig Motor (magazine core) assy Moteur (noyau de cassette), compl.	
40	P4 -4034		Schrittmotor Step motor Moteur pas à pas	KH-56KM2-020 KH-56KM2-020 KH-56KM2-020
41	P4 -8516		Riemenscheibe 12 Pulley 12 Disque à courroie 12	

Magazinantrieb / Magazine Drive Unit / Entraînement de cassette 51D-0113



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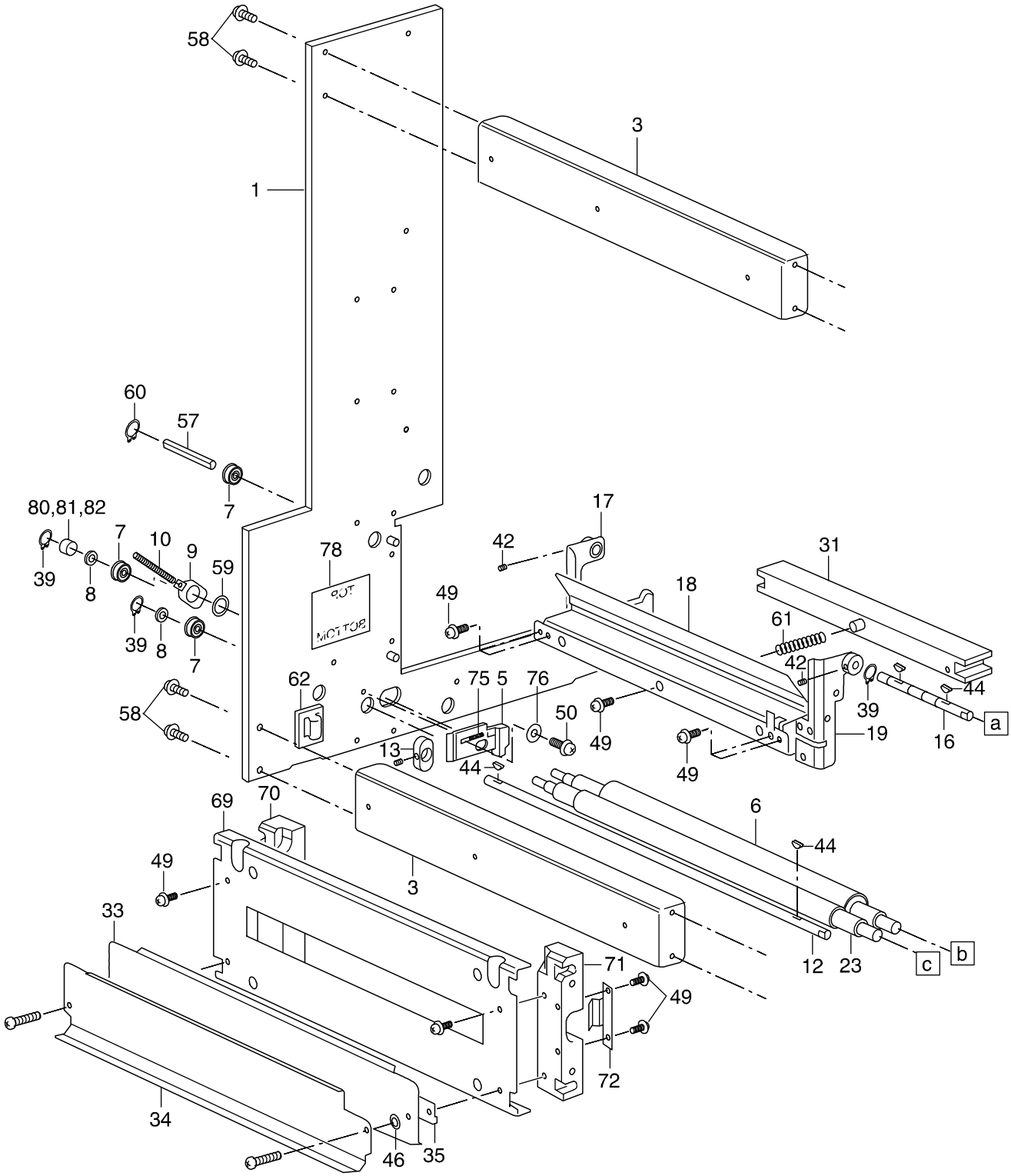
Magazinantrieb / Magazine Drive Unit / Entraînement de cassette 51D-0113

Pos. Item no. Pos.	Teil-Nr. Part no. No. de ref.	ABC Code	Bezeichnung Description Désignation	Bemerkungen Remarks Remarques
42	P4 -E0186		Platte (Motor) Plate (motor) Plaque (moteur)	
43	P4 -8520		Umlenkung 16 Idler 16 Renvoi	
44	P4 -5002(25/1)		Lager MF106ZZS Bearing MF106ZZS Palier MF106ZZS	
45	P4A-E0018		Platte (Umlenkung), vollständig Plate (Idler) assy Plaque (renvoi), compl.	
46	P4 -86113		Stift Pin Broche	
47	P5A-E0037		Block Sub, vollständig Block Sub assy Bloc Sub, compl.	
48	P4 -E0138		Steckerhalter (U) L Connector holder (U) L Support de connexion (U) L	
49	P4 -E3950		Platte L Plate L Plaque L	
50	P5A-E1021		52A-MAD Gedruckte Schaltung 52A-MAD PCB assy 52A-MAD Circuit imprimé	
51	P5A-88196	83FDA	50A-WDT Gedruckte Schaltung 50A-WDT PCB assy 50A-WDT Circuit imprimé	
52	P5A-88314	83FGB	50A-LED Gedruckte Schaltung 50A-LED PCB assy 50A-LED Circuit imprimé	
53	P2 -E0034		Sensorabdeckung L Sensor cover L Capot de capteur L	(A25-52) (A25-52) (A25-52)
54	P4 -E0073		Steckerhalter (F) L Connector holder (F) L Support de connexion (F) L	(A01-52) A01-52) (A01-52)
55	P4 -E4757		Scheibe Washer Rondelle	
56	P4 -5300(3/1)		Abstandshalter BB L=60 Spacer BB l=60 Ecarteur BB l=60	
57	P4 -1058(4/1)		Abstandshalter KGLS-6S Spacer KGLS-6S Ecarteur KGLS-6S	

FOCRT **AG850 (1/2)**

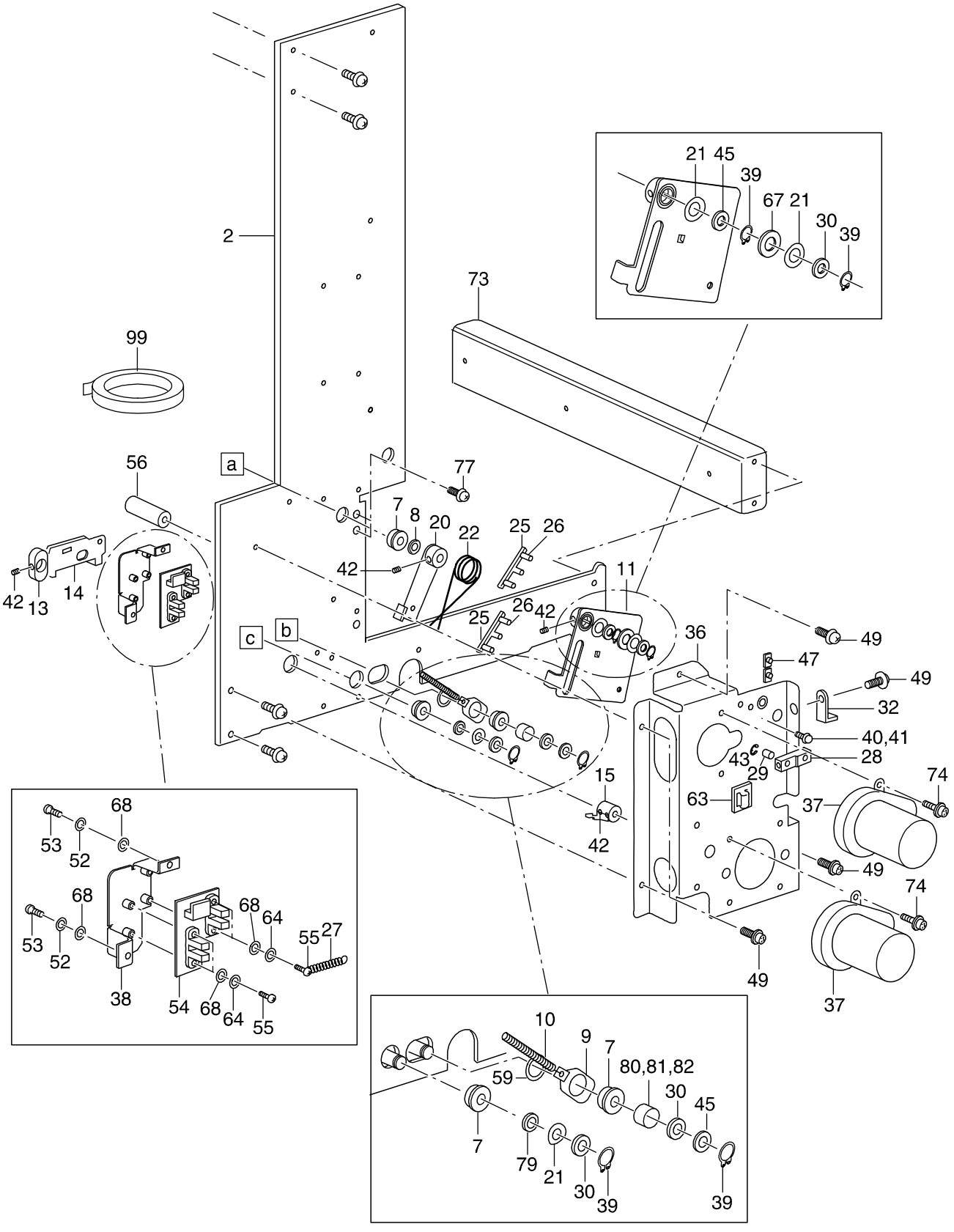


dpu26.cdr

FOCRT AG850

Pos. Item no. Pos.	Teil-Nr. Part no. No. de ref.	ABC Code	Bezeichnung Description Désignation	Bemerkungen Remarks Remarques
0	P5A-E4192		FOCRT (DPU-Antrieb, vollständig) FOCRT (DPU Engine assy) FOCRT (DPU Entraînement, compl.)	
1	S9+10751-105		Platte, seitlich, links (vorne) Plate, side, LHS (front) Plaque, côté, à gauche (avant)	
2	S9+10751-004		Platte, seitlich, rechts (hinten) Plate, side, RHS (back) Plaque, côté, à droite (arrière)	
3	S9+10752-001		Strebe (Ausgabeseite) RT Block, dispenser, RT Contre-fich (sortie) RT	
5	S9+10853-002		Druckstück BRKT links Cam follower bracket BRKT, LHS Pièce de pression BRKT à gauche	
6	S9+16828294-001		Andruckrolle Pressure roller Galet de pression	
7	S9+16738273-134		Flanschkugellager Ball bearing, flanged Roulement à billes (bride)	
8	S9+16758128-101		Distanzscheibe, rostfrei Spacer .125, stainless Ecarteur (disque), sans rouille	
9	S9+16828304-001		Lagerplatte, Abdruckrolle Bearing plate, pressure roller Palier, Galet de pression	
10	S9+16738290-068		Spiralfeder (Verlängerung) Spring, helical, extension Ressort, hélicoïdal (rallonge)	
11	S9+16828319-006		Arm, geschweißt Arm, weldment Bras, soudage	
12	S9+19771-001		Achse (Nocke) Shaft, Cam Axe (came)	
13	S9+10772-001		Nocke Cam Came	
14	S9+10773-003		Druckstück BRKT rechts Contoured part BRKT, RH Pièce usinée BRKT à droite	
15	S9+10774-001		Kupplung, Motor Coupling, motor Couplage, moteur	
16	S9+16828312-001		Achse rechts Shaft right , pivot Axe à droite	
17	S9+16828319-001		Arm vollständig, geschweißt Arm assy, weldment Bras compl., soudage	
18	S9+16828330-003		Papierführung, oben Paper guide, upper Guidage papier en haut	
19	S9+16828319-002		Arm vollständig, geschweißt Arm assy, weldment Bras compl., soudage	
20	S9+16828319-003		Arm vollständig, geschweißt Arm assy, weldment Bras compl., soudage	
21	S9+16775275-011		Federscheibe Washer (spring) Rondelle (ressort)	

FOCRT **AG850 (2/2)**

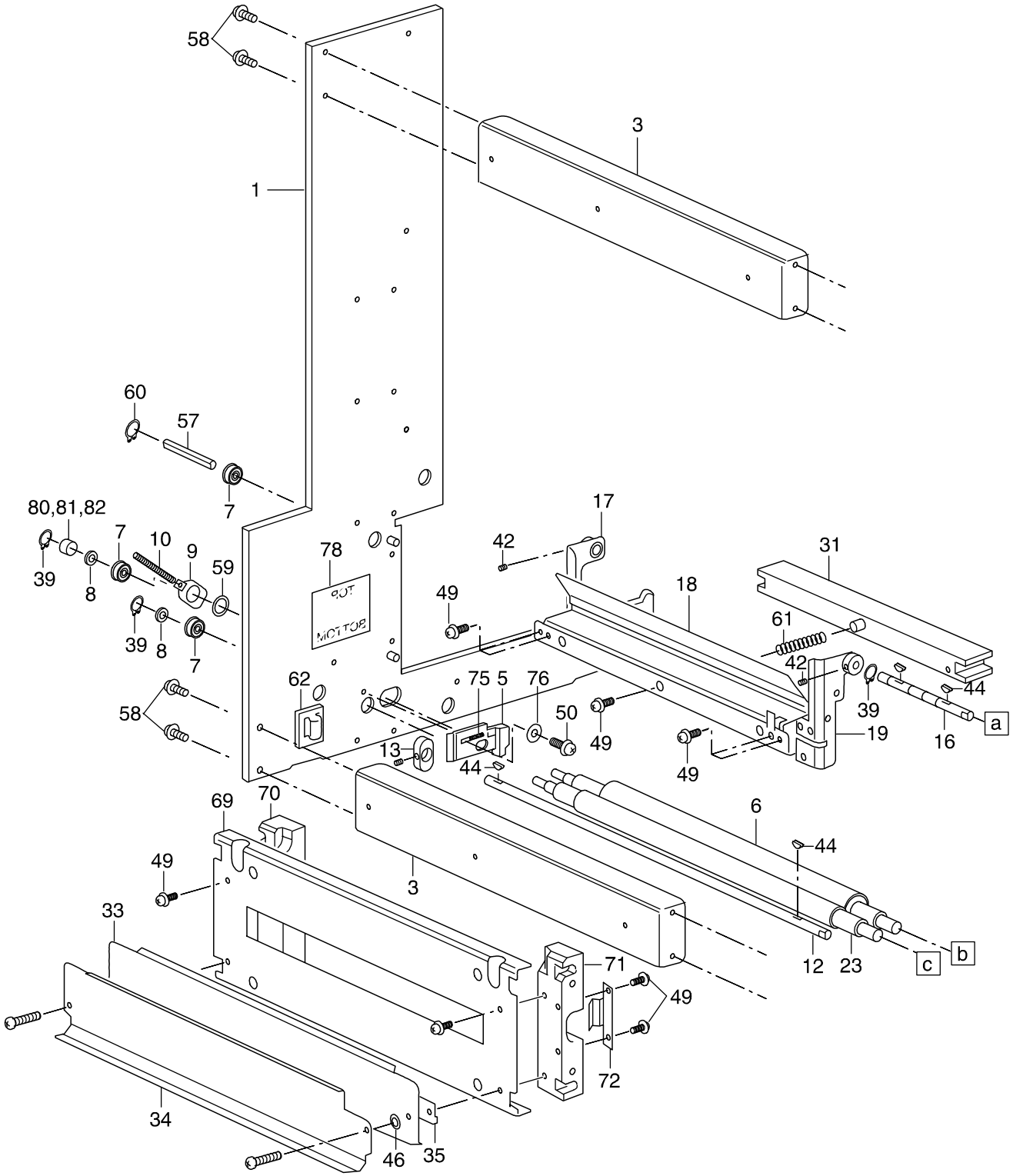


dpu27.cdr

FOCRT AG850

Pos. Item no. Pos.	Teil-Nr. Part no. No. de ref.	ABC Code	Bezeichnung Description Désignation	Bemerkungen Remarks Remarques
22	S9+16779214-012		Feder Spring, helical Ressort	
23	S9+16828293-002		Antriebsachse, Gummi Shaft, drive, rubber (covered) Arbre d'entraînement (caoutchouc)	
25	S9+16828705-001		Magnethalter Pole piece magnet Fixation (aimant)	
26	S9+16781258-903		Magnet Magnet Aimant	
27	S9+16738290-067		Spiralfeder (Verlängerung) Spring, helical, extension Ressort, hélicoïdal (rallonge)	
28	S9+16828316-002		Nocke Cam Came	
29	S9+16828495-001		Buchse Drill bushing Douille	
30	S9+AN960C416		Scheibe Washer Rondelle	
31	S9+16828198-006		Andruckstück, vollständig Pressure pad assy Pièce de pression, compl.	
32	S9+16726506-005		Winkel Retaining strap Equerre	
33	S9+10782-002		Papierführung unten, hinten Paper guide LWR rear Guidage papier en bas, arrière	
34	S9+10802-002		Papierführung unten, vorne Paper guide LWR rear Guidage papier en bas, avant	
35	S9+10803-003		Abstandsstück, Papierführung hinten Spacer, rear guide Ecarteur, guidage papier en arrière	
36	S9+10806-001		Winkel, Motoraufbau Bracket, motor mounting Equerre, construction de moteur	
37	S9+16828321-001		Motor, DC (A6A1, A7) Motor, DC (A6A1, A7) Moteur, DC (A6A1, A7)	
38	S9+10939-002		Winkel, Sensor MTG Bracket, sensor MTG Equerre, capteur MTG	
39	S9+MS16624-1025		Sicherungsring Retaining ring Circlip de retenue	
40	S9+MS51957-12		Schraube 4-40 X .18L Screw 4-40 X .18L Vis 4-40 X .18L	
41	S9+MS35338-40		Sicherungsscheibe #4 Washer, lock #4 Rondelle de retenue #4	
42	S9+99000230-404		Gewindestift M4x4 L Set screw M4x4 L Vis sans tête M4x4 L	
43	S9+MS90707-1025		Sicherungsring Retaining ring Circlip de retenue	

FOCRT **AG850 (1/2)**



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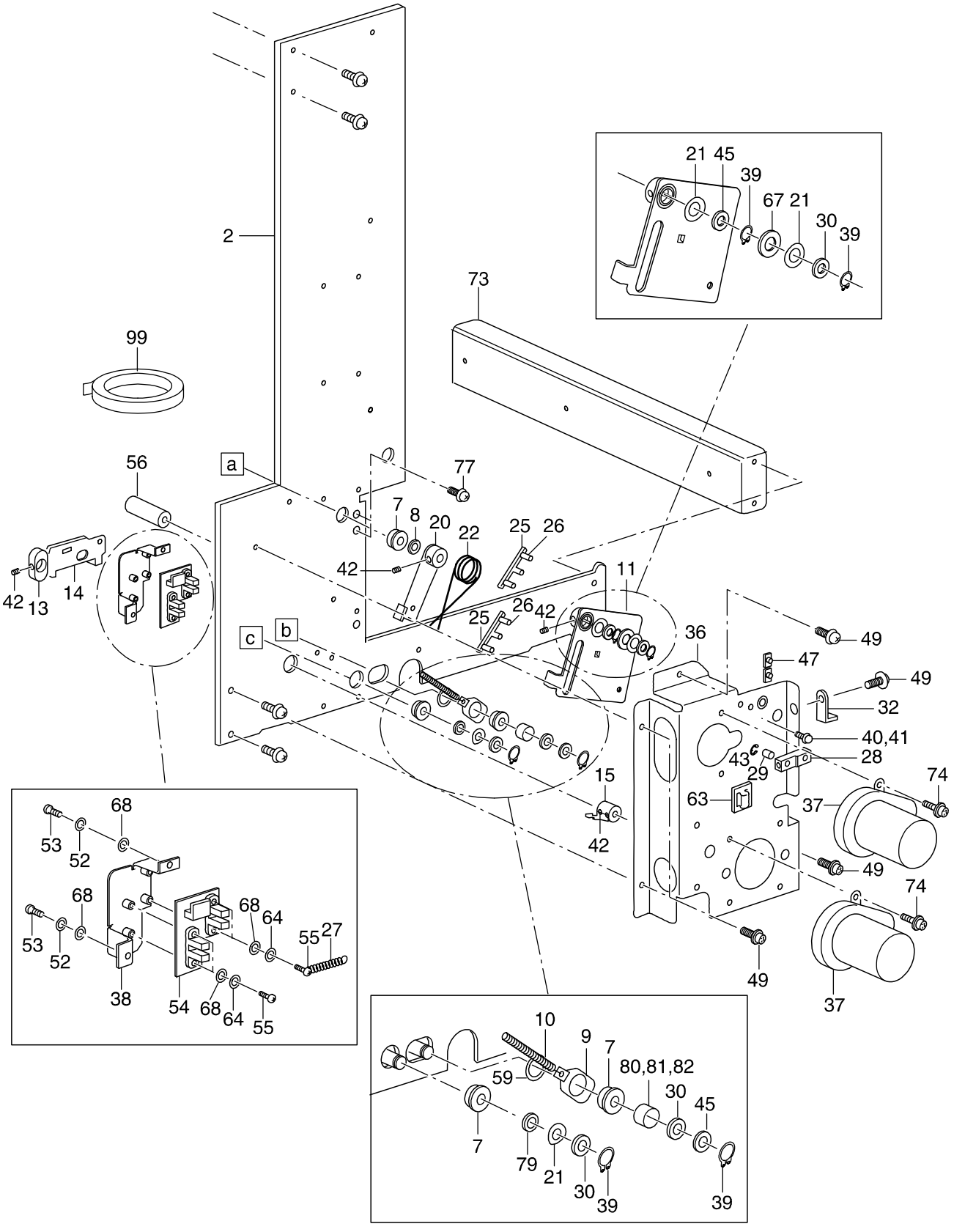
FOCRT AG850

Pos. Item no. Pos.	Teil-Nr. Part no. No. de ref.	ABC Code	Bezeichnung Description Désignation	Bemerkungen Remarks Remarques
44	S9+MS35756-1		Scheibenfeder DIN 6888 Woodruff key DIN 6888 Rondelle elastique bombée DIN 6888	
45	S9+AN960C416L		Scheibe Washer Rondelle	
46	S9+16757313-020		Scheibe Shoulder washer Rondelle	
47	S9+16828360-102		Kabel W3 Cable, hall effect W3 Câble W3	
49	S9+16825235-585		Schraube mit Scheibe M4x10 L Screw with washer M4x10 L Vis avec rondelle M4x10 L	
50	S9+16825235-586		Schraube mit Scheibe M4x12 L Screw with washer M4x12 L Vis avec rondelle M4x12 L	
52	S9+99000343-001		Sicherungsscheibe M2 Washer, lock, M2 Rondelle de retenue M2	
53	S9+99000201-110		Schraube PNH M2x10 L Screw PNH M2x10 L Vis PNH M2x10 L	
54	S9+10942-001		CCA, Sensor CCA, sensor CCA, capteur	
55	S9+MS35206-215		Schraube 4-40x.312L Screw 4-40x.312L Vis 4-40x.312L	
56	S9+16829347-001		Stopp-Pin Stop, diverter pin Arrêt (broche)	
57	S9+16829348-001		Achse Shaft, diverter Axe	
58	S9+16825235-587		Schraube mit Scheibe M4x16 L Screw with washer M4x16 L Vis avec rondelle M4x16 L	
59	S9+16737979-801		Nylonscheibe 505ID Washer, flat, nylon, 505ID Rondelle (nylon) 505ID	
60	S9+16759863-195		Greifring ø .245 Retaining ring ø .245 Bague ø .245	
61	S9+16759163-021		Feder .029x1.0L Spring .029x1.0L Ressort .029x1.0L	
62	S9+16815400-001		Kabelklemme Clamp, loop Borne (câble)	
63	S9+16815400-002		Kabelklemme Clamp, loop Borne (câble)	
64	S9+MS35338-135		Sicherungsscheibe #4 Washer, lock #4 Rondelle de retenue #4	
67	S9+16758128-098		Abstandshalter .031, rostfrei Spacer .031, stainless Ecarteur .031 sans rouille	
68	S9+99000229-003		Scheibe, flach, M3 Washer, flat, M3 Rondelle, plat, M3	

FOCRT **AG850 (2/2)**



dpu27.cdr

FOCRT AG850

Pos Item no. Pos.	Teil-Nr. Part no. No. de ref.	ABC Code	Bezeichnung Description Désignation	Bemerkungen Remarks Remarques
69	S9+11057-001		Winkel, DPU Bracket, DPU Support Equerre, DPU	
70	S9+16829326-001		Block, DPU-Aufbau, links Block, DPU mount, left Bloc, construction DPU, à gauche	
71	S9+16829326-002		Block, DPU-Aufbau, rechts Block, DPU mount, right Bloc, construction DPU, à droite	
72	S9+16829327-001		Feder, DPU Spring, DPU locating Ressort, DPU	
73	S9+10752-101		Block LT Block, dispenser, LT Bloc LT	
74	S9+16825235-545		Schraube PNH M3x10 L Screw PNH M3x10 L Vis PNH M3x10 L	
75	S9+16738290-069		Feder (Verlängerung) Sprint, extension Ressort (rallonge)	
76	S9+11113-001		Distanzscheibe Spacer Ecarteur (disque)	
77	S9+16825235-601		Schraube Screw Vis	
78	S9+16828844-003		Aufkleber, mechanische Gefahr Label, mechanical hazard Etiquette, danger mécanique	
79	S9+16610282-008		Lagerscheibe (SHIM) Bearing SHIM Palier, disque (SHIM)	
80	S9+16758128-091		Abstandshülse Spacer, Sleeve, round .004“ thk Baque	
81	S9+16758128-094		Abstandshülse Spacer, Sleeve, round .010“ thk Baque	
82	S9+16758128-097		Abstandshülse Spacer, Sleeve, round .016“ thk Baque	
99	CM+9.9999.1081.0		Klebebandrolle CRT Tape roll Bande adhésive	

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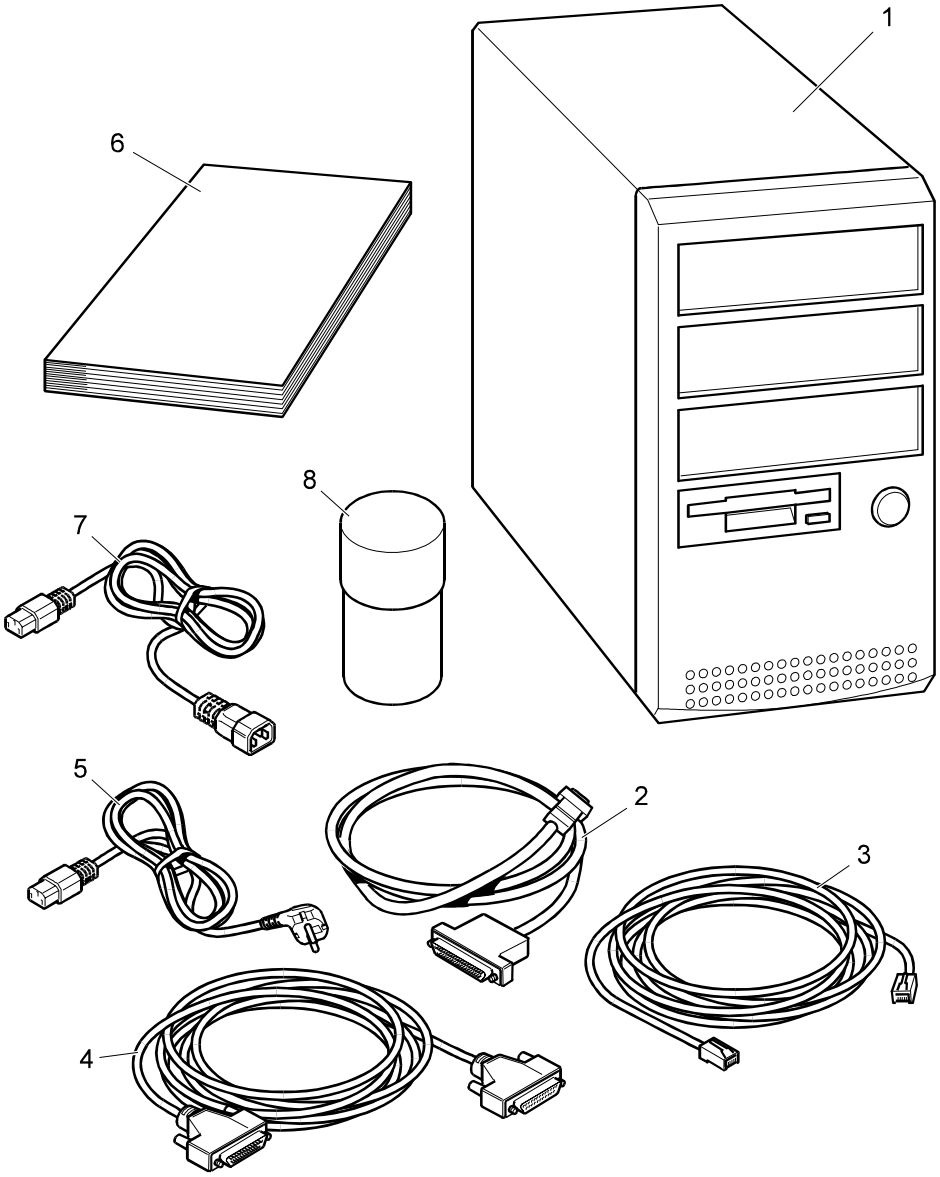
Installation

Components of the type



1 Index Image Processor
2 Cable Index Printer Data
3 Cross Connect Ethernet cable 100T-Base
4 Cable Index Printer Scan
5 Power cable (used for the DPU)
6 Installation CD and Boot diskette
7 Power cable 3 wires (to connect the IP in the DPU)
8 Cleaning cloths with box

Prerequisites

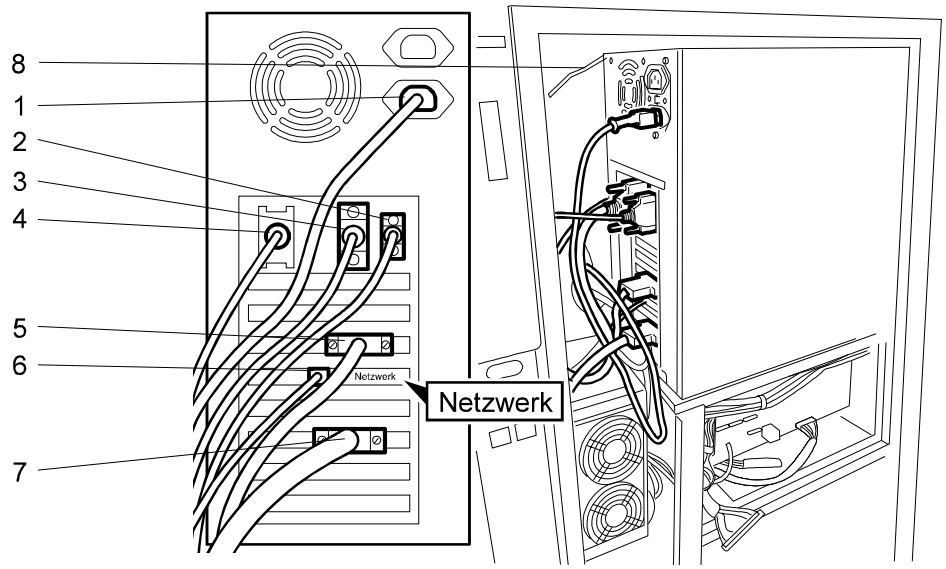
The IP (Image Processor) serves as interface between the workstation and the DPU. All digital images that are sent by the workstation to the IP via Ethernet are printed by the DPU. More detailed information about the prerequisites of the workstation are given in the chapter Installation of the DPU Documentation, or can be obtained from our local subsidiary. We recommend the Agfa DPU Handshake Software for better adjustment of the digital images to the paper width in use.

Software of the IP

The IP is delivered with an operative Software. Should a new installation be required, the Software can be ordered under P/N CM+9.8508.9949.0. It can then be used for reinstallation.

Information about Update versions can be obtained from your local service subsidiary.

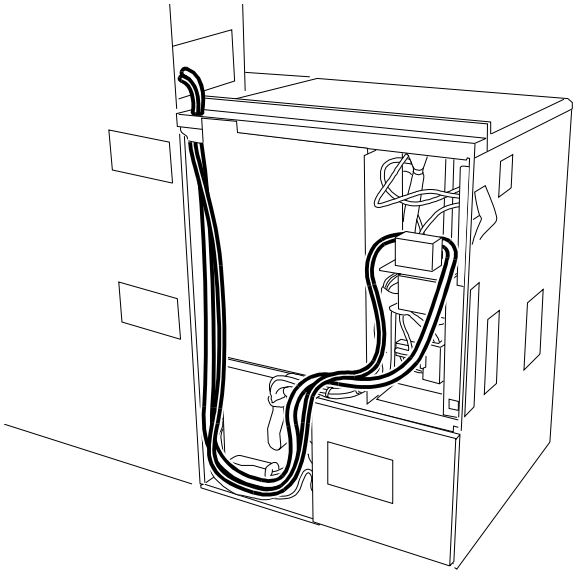
Connecting the IP



1 Power cable
2 Connection for a serial mouse (not needed for normal operation)
3 Index Printer Scan
4 Keyboard connection (not needed for normal operation)
5 Index Printer Data
6 Ethernet connection
7 Connecting cable to the FOCRT
8 GND connection for the IP

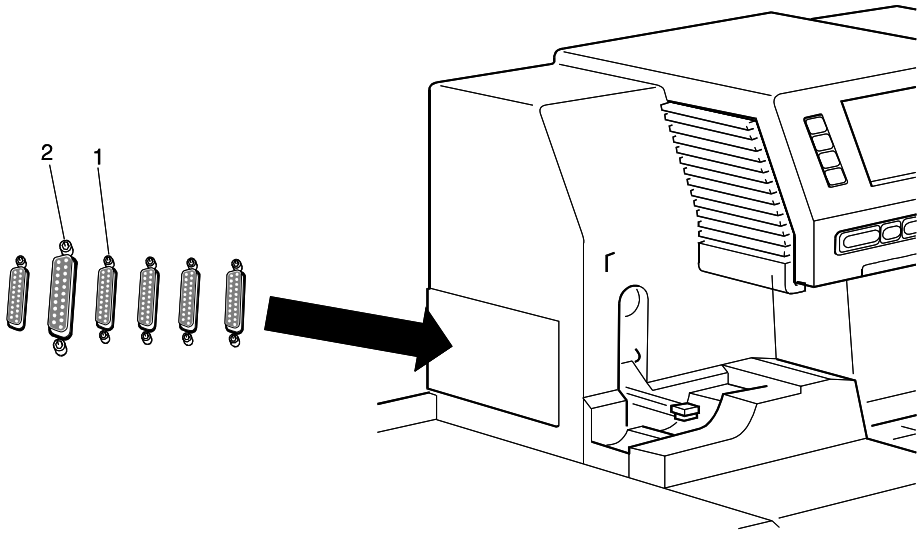
- ❑ Put the IP into the free compartment on the left side of the FOCRT unit
- ❑ Connect the cables shown above to the IP.
- ❑ Take the power cable that is normally used for the screen. Connect the other end to the high-voltage output in the DPU.

- ❑ Link the GND connection of the IP with the frame of the DPU.
- ❑ Run the cables to the Agfa computer as shown in the following figure.



- ❑ Link the connections of the Index Image Processor „Index Printer Scan“ and „Index Printer Data“ to the MSC to the connections carrying the same name.

On the machines MSC 100 and MSC 200, the connections can be found after removing the indicated cover.



1 Connector Index Printer Data
2 Connector Index Printer Scan

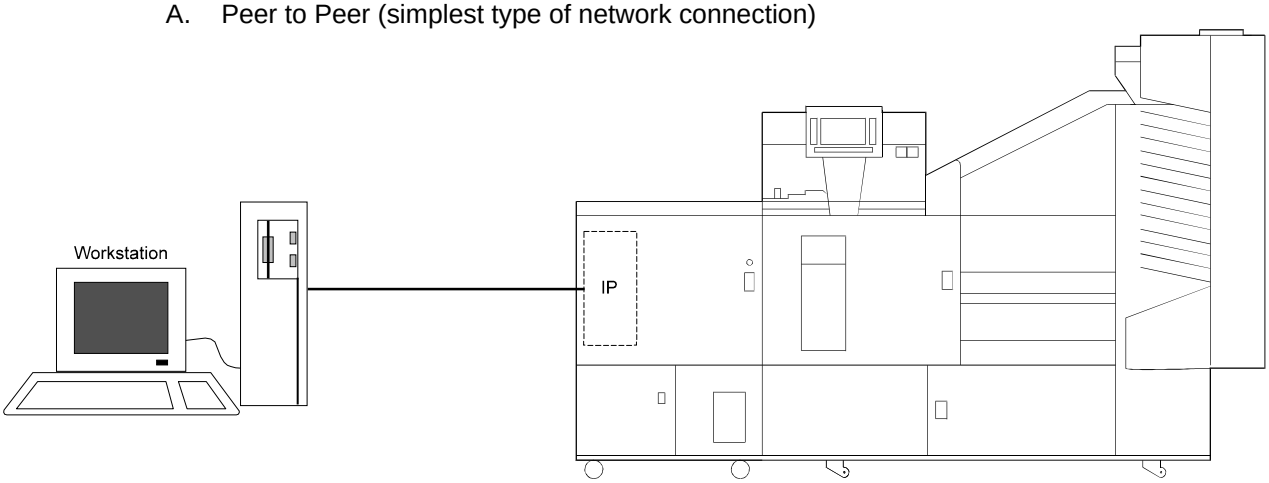
Preparation of the Network Connection of the IP

General regarding the network connection

It should be clarified prior to the installation in which network neighborhood the DPU will be used.

Possible network types:

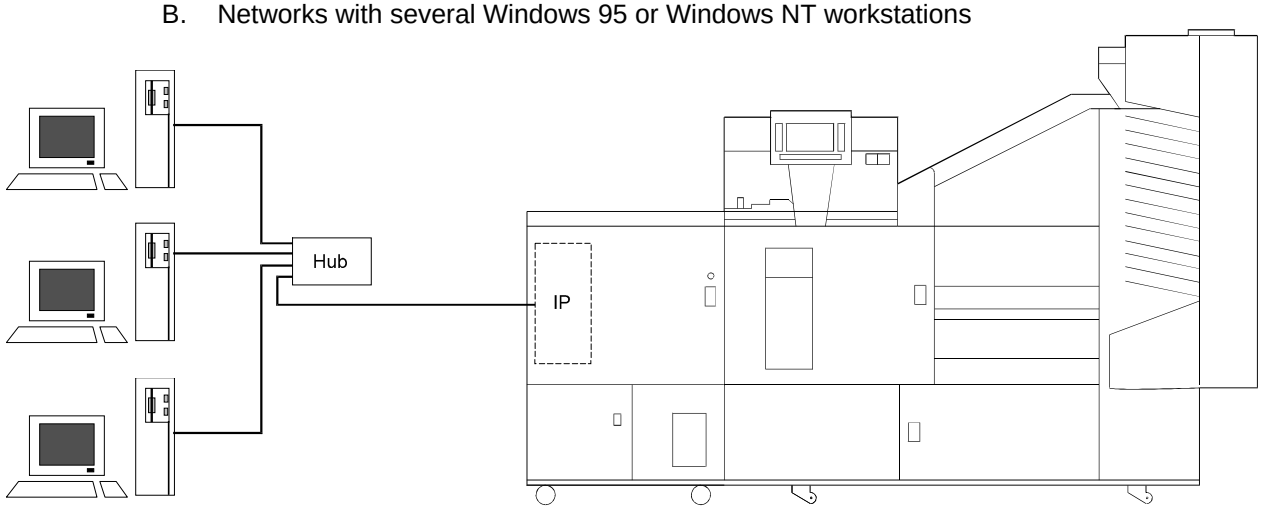
A. Peer to Peer (simplest type of network connection)



▼ Required Hardware: Ethernet 10 Base T or 100 Base T
Cross Connect cable, comprised in the scope of delivery (Twisted Pair)
Protocol: NetBEUI

Note If the cross connect cable cannot be used (e.g. too short), it is not possible to use a commercial 1:1 network cable. The special wiring is given in the chapter with the circuit diagrams.

B. Networks with several Windows 95 or Windows NT workstations



▼ Required Hardware: Ethernet 10 Base T or 100 Base T
Standard network cable (Twisted Pair) for every workstation and IP -- Hub, not included in the scope of delivery
Hub (distributor function)

Protocol: NetBEUI

C. Larger network

Basically, the structure is the same as under B. In most cases, the TCP/IP protocol is used.
It may be that a DHCP Server allocates the TCP/IP addresses centrally. In this case, the IP has to be modified *(see Preparation of a Windows 95 Workstation)*.

The network installation on the IP

The IP is factory-equipped with an Ethernet interface board. The following network protocols have been prepared:

– NetBEUI

– TCP/IP

The network is selected automatically on the IP. For TCP/IP, additional modifications may have to be performed on the IP.

Settings on the IP when the TCP/IP protocol is used with the DCHP server

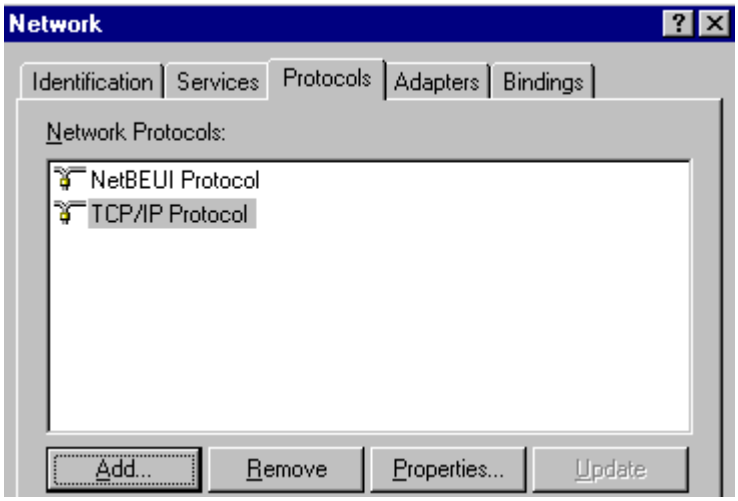
Note These settings are only required when larger networks are used and the network server allocates the TCP/IP addresses centrally (DCHP Server)

❑ Select **START/SETTINGS/CONTROL PANEL**

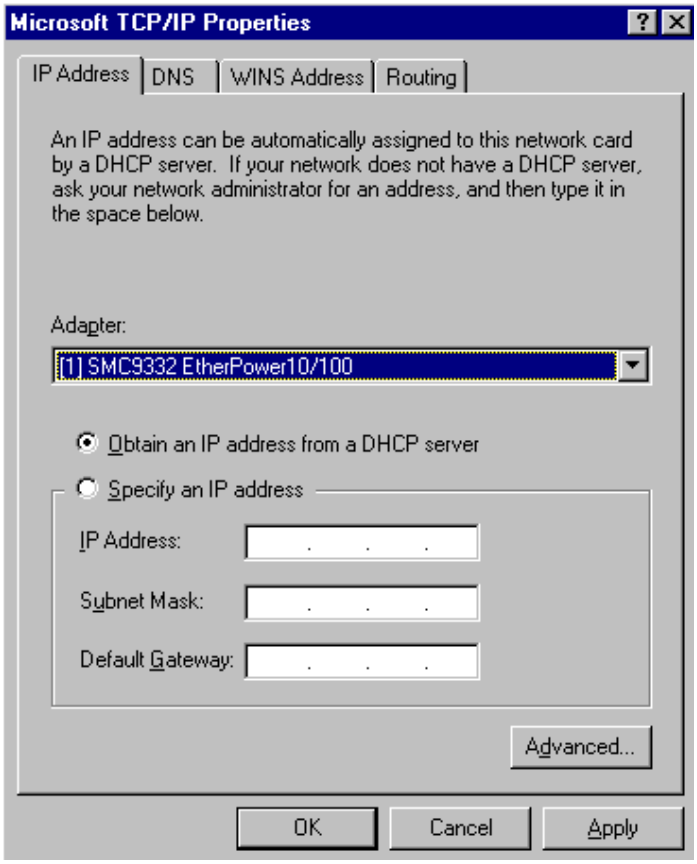
❑ Click the icon **Network** twice

❑ Select **Protocols**.

❑ Click on **TCP/IP** so that the line is activated (grey background).



- Go to Properties and click on **Obtain an IP address from a DHCP server**


Microsoft TCP/IP Properties
IP Address
DNS
WINS Address
Routing
An IP address can be automatically assigned to this network card by a DHCP server. If your network does not have a DHCP server, ask your network administrator for an address, and then type it in the space below.
Adapter:
[1] SMC9332 EtherPower10/100
Obtain an IP address from a DHCP server
Specify an IP address
IP Address:
Subnet Mask:
Default Gateway:
Advanced...
OK
Cancel
Apply

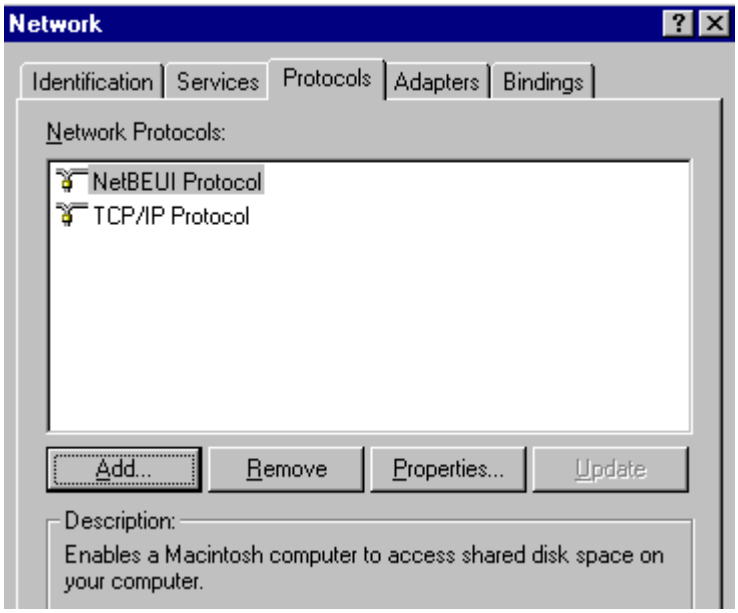
Preparation of a Windows NT Workstation

▼ The workstation should be equipped with an Ethernet board.

Selection of the network protocol

Basically, we recommend to use the NetBEUI protocol. If the TCP/IP protocol is used, some additional settings have to be performed on the IP.

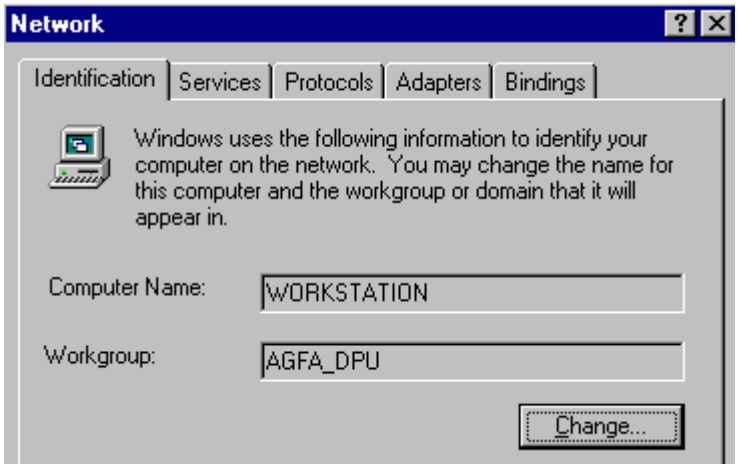
- ❑ Select **START/SETTINGS/CONTROL PANEL**
- ❑ Click the icon **Network** twice
- ❑ Select **Protocols**.



- ❑ If neither **NetBEUI** nor **TCP/IP** appears in the window, at least one of the two has to be installed under Add...
- ❑ Select the protocol in use.

Entering the identification

- ❑ Go to **Identification**



- ❑ Click on **Change**
- ❑ Enter AGFA_DPU under **Workgroup**. The entry under **Computer Name** can be freely selected.

This concludes the settings on the workstation. All modifications are saved and validated when the window is closed by **Close**.

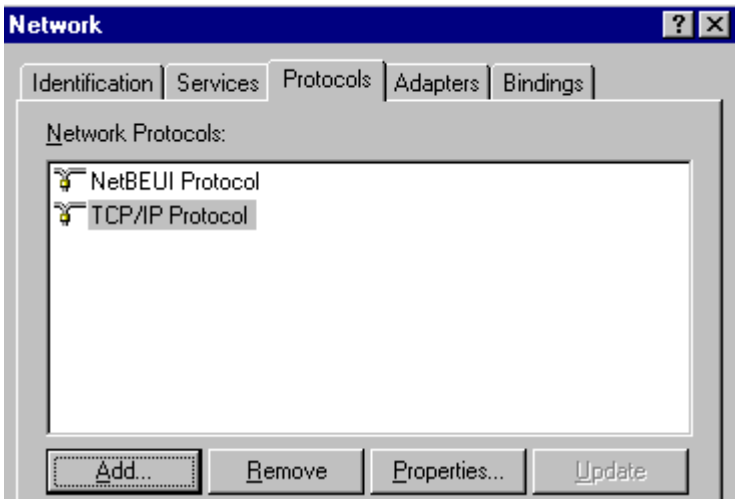
If the protocol **TCP/IP** has been selected, a few additional settings have to be performed:

– For small networks, the IP address has to be entered on the workstation *(see the following chapter)*.

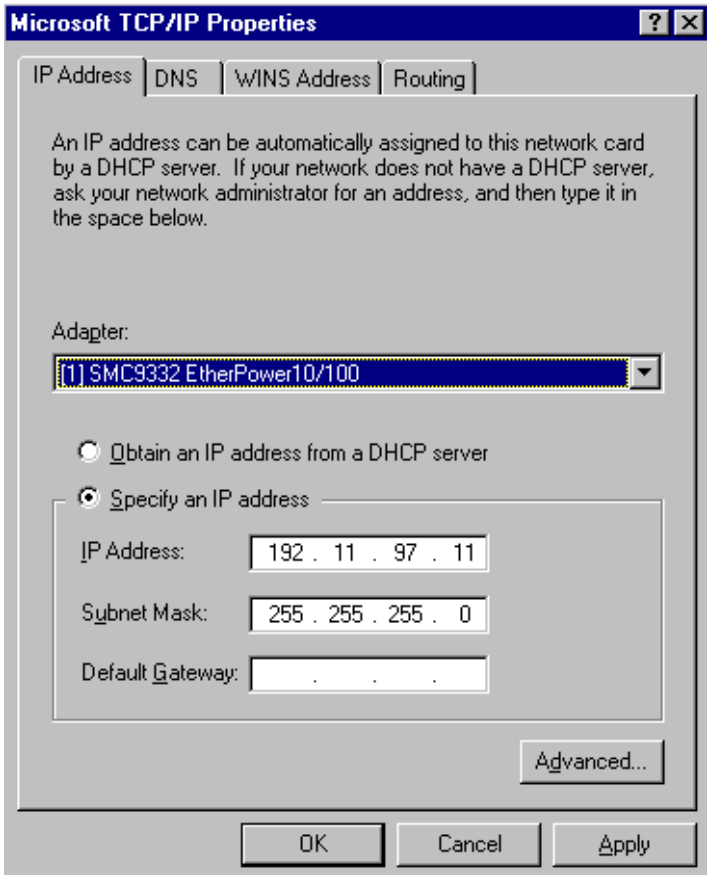
– If a larger network with a DHCP Server is used, then this has to be set on the IP.

Entering the IP address (only for the TCP/IP protocol)

- ❑ Select **START/SETTINGS/CONTROL PANEL**
- ❑ Click on the icon **Network** twice
- ❑ Select **Protocols**.
- ❑ Click on **TCP/IP** so that the line is activated (grey background).



- ❑ Go to Properties and enter an address that differs from that of the IP *(see Technical Data)*. The example shown below can be used.

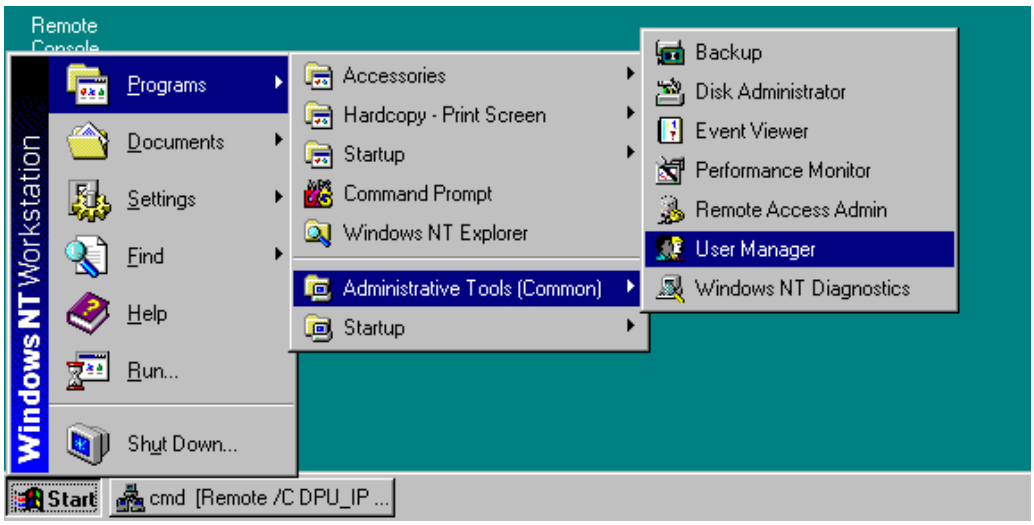

Microsoft TCP/IP Properties
IP Address
DNS
WINS Address
Routing
An IP address can be automatically assigned to this network card by a DHCP server. If your network does not have a DHCP server, ask your network administrator for an address, and then type it in the space below.
Adapter:
[1] SMC9332 EtherPower10/100
Obtain an IP address from a DHCP server
Specify an IP address
IP Address:
192 . 11 . 97 . 11
Subnet Mask:
255 . 255 . 255 . 0
Default Gateway:
Advanced...
OK
Cancel
Apply

Note If several workstations are used, a different address must be specified for each one of them. The selection is free or the address is entered by the network administrator in a larger network.

Specifying new users

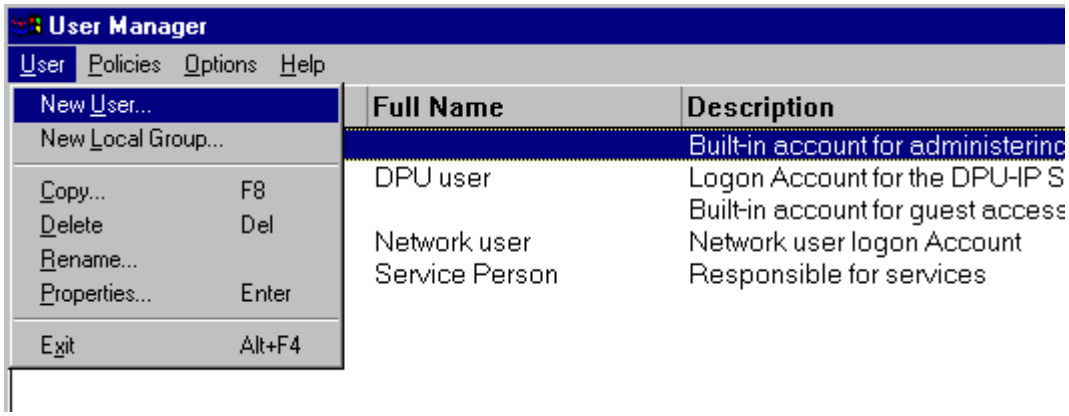
The user name and the password have to be entered so that the workstation can transmit the image files to the IP.

Note The following setting is only possible if the user of the workstation has administrator rights; i.e. the operator has to log in as administrator user when starting the NT.
Select **START/Programs/Administrative Tools/User manager**



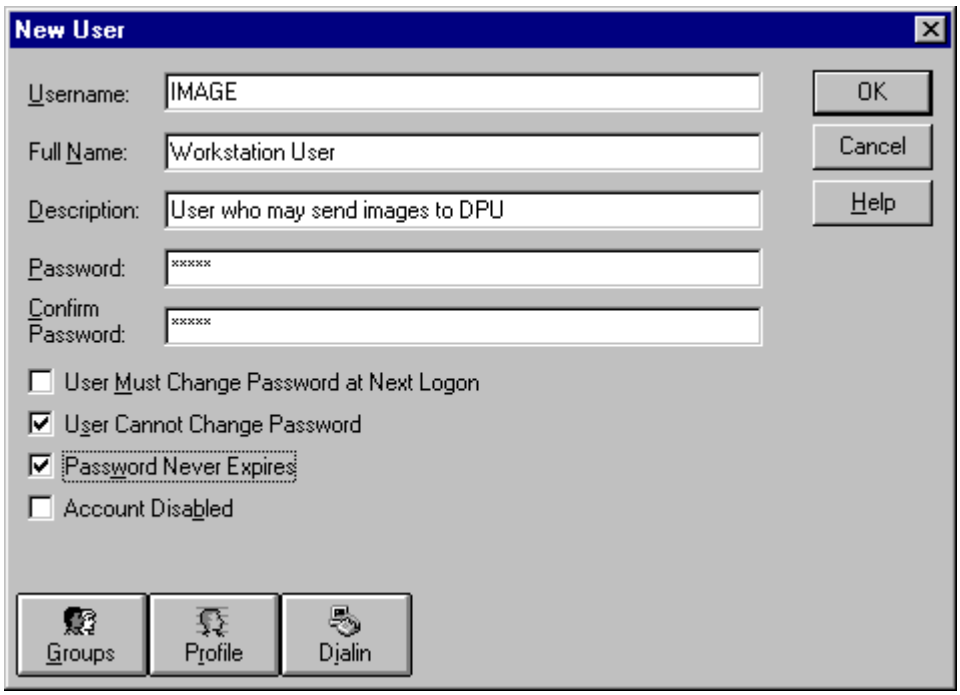
The User Manager is opened.

❑ Select in the menu **User** the sub-point **New User** to create a new user

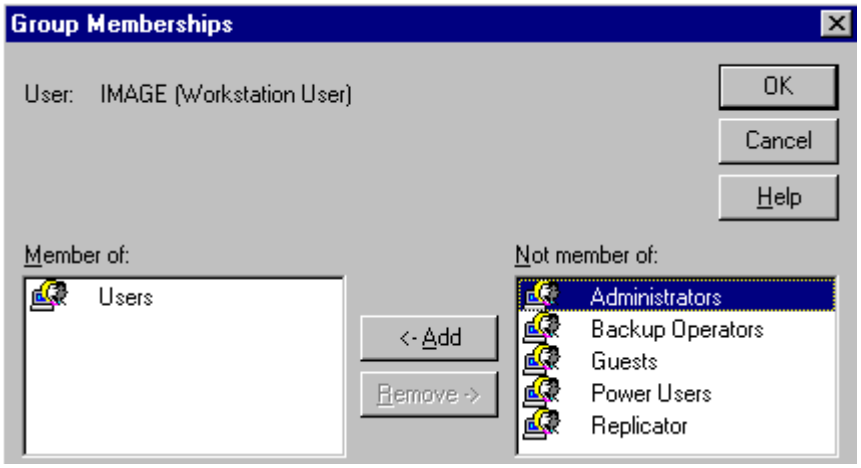


❑ Enter all data as shown in the figure below. A different text may be entered under **Full Name** and **Description**.
The password for the user IMAGE is:
MSC IMAGE and **MSC** have to be written in capital letters!

❑ The passwords have to be entered as shown in the example below.



❑ Then click on **Groups**. Here, the user rights are specified.

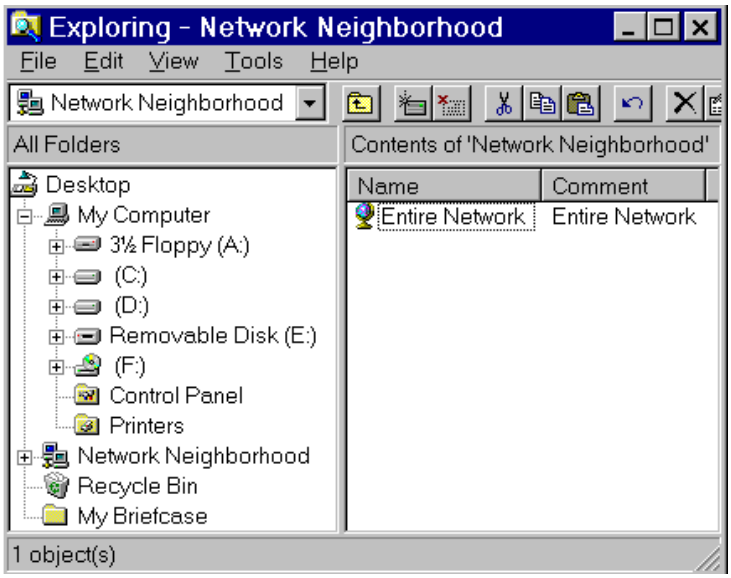


As shown in the figure above, **Users** must be entered in the left box. If this is not the case, the privilege **Users** has to be searched in the right box and clicked. **Add** will enter it in the left box.

The User Image may also get other rights on the workstation. On the IP, Image has always only normal User rights.

Allowing access of the workstation to the IP

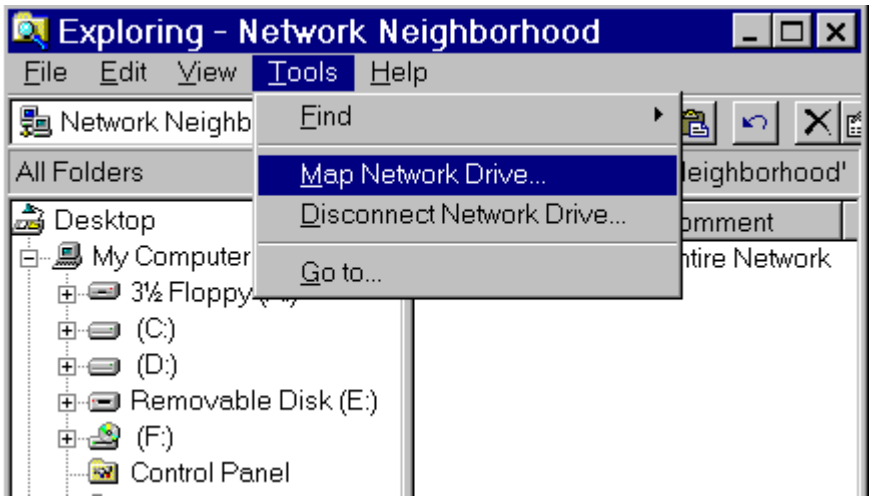
- ❑ Start the Windows Explorer
- ❑ Search **`Network neighborhood`**



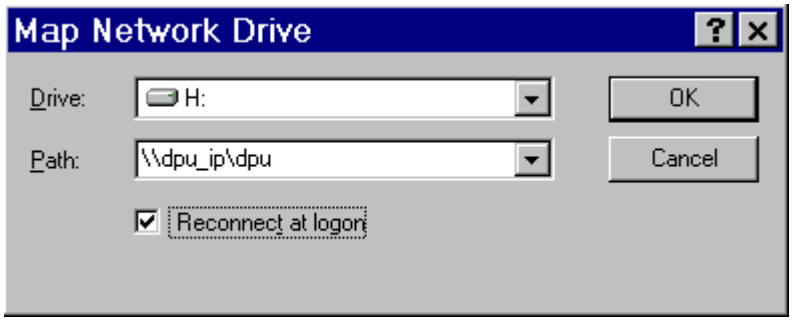
- ❑ After clicking +, **`Dpu_ip`** should appear. The network connection is established. Then specify a drive for the connection.

Specifying a drive

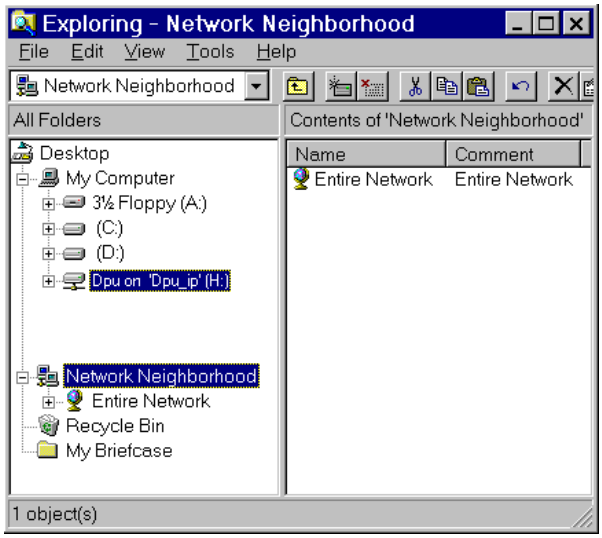
- ❑ Select **Tools/Map network drive**



- ❑ A free drive is proposed. We recommend to use a higher letter, e.g. **H**.
- ❑ Enter the path given in the example below.
- ❑ Confirm with **OK**.



After pressing <F5> (display refreshed) the DPU appears with the selected drive.



This concludes the network preparations.

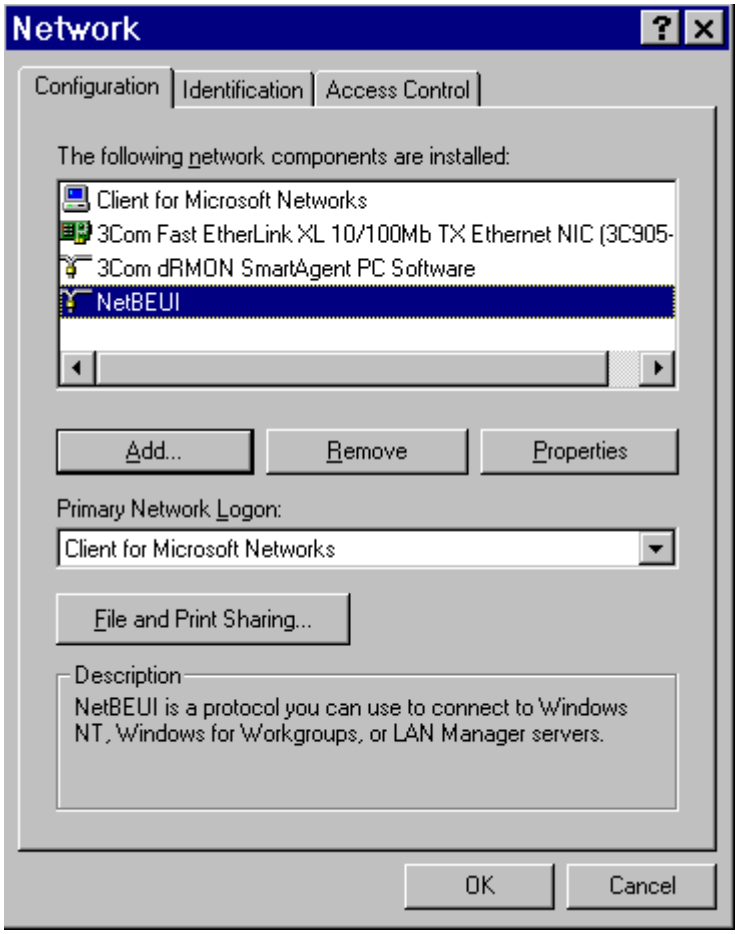
Preparation of the Windows 95 Workstation

Note The workstation has to be equipped with an Ethernet board.

Selection of the network protocol

Basically, we recommend to use the NetBEUI. If the TCP/IP protocol is used, some additional settings have to be performed on the IP.

- ❑ Select **START/Settings/System control**
- ❑ Click on the icon **Network** twice
- ❑ Select **Configuration**

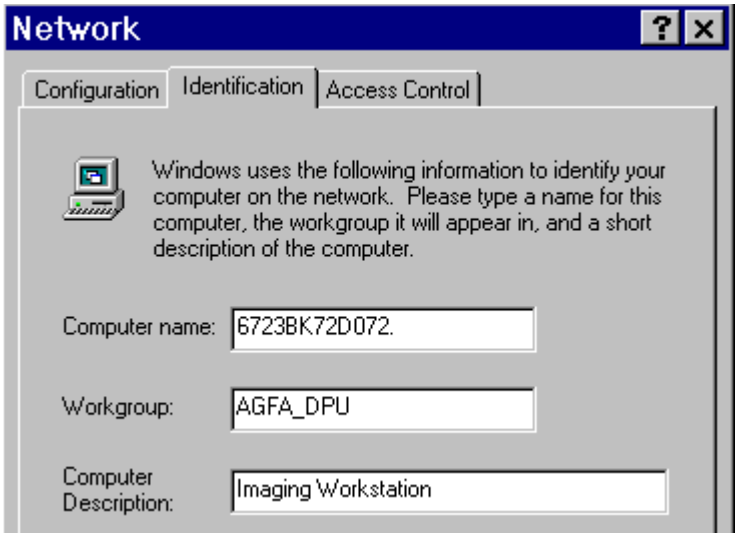


- ❑ Check whether NetBEUI exists. If not, this protocol has to be installed by the workstation owner. *See also Register 1, Installation.*

Note If the Windows 95 workstation is to be integrated into an existing network, the TCP/IP protocol may have to be selected.

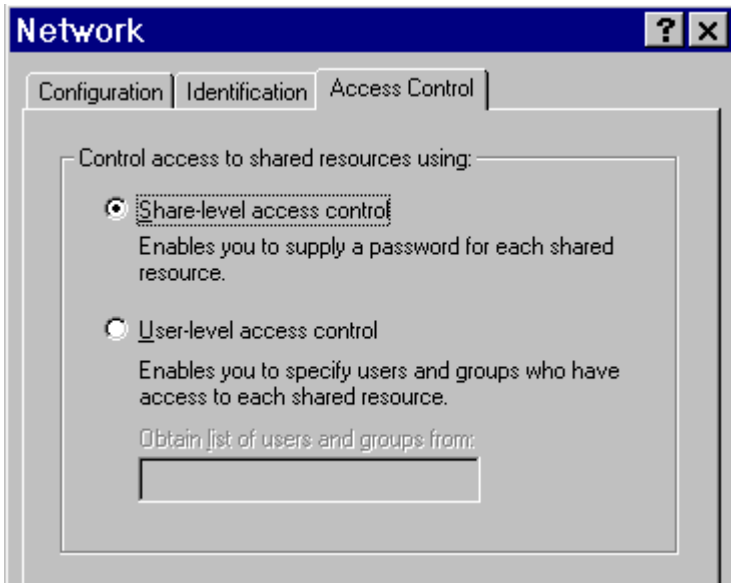
Entering the identification

- ❑ After selecting the protocol, go to **Identification**
- ❑ Enter **AGFA_DPU** under workgroup. The entries under Computer name and Description can be performed at will.


Network
Configuration
Identification
Access Control
Windows uses the following information to identify your computer on the network. Please type a name for this computer, the workgroup it will appear in, and a short description of the computer.
Computer name:
6723BK72D072.
Workgroup:
AGFA_DPU
Computer Description:
Imaging Workstation

Defining the access control

- ❑ Select **Access control**
- ❑ Set the method shown below.


Network
Configuration
Identification
Access Control
Control access to shared resources using:
Share-level access control
Enables you to supply a password for each shared resource.
User-level access control
Enables you to specify users and groups who have access to each shared resource.
Obtain list of users and groups from:

- ❑ This concludes the network settings. Confirm the entries by pressing **OK**.

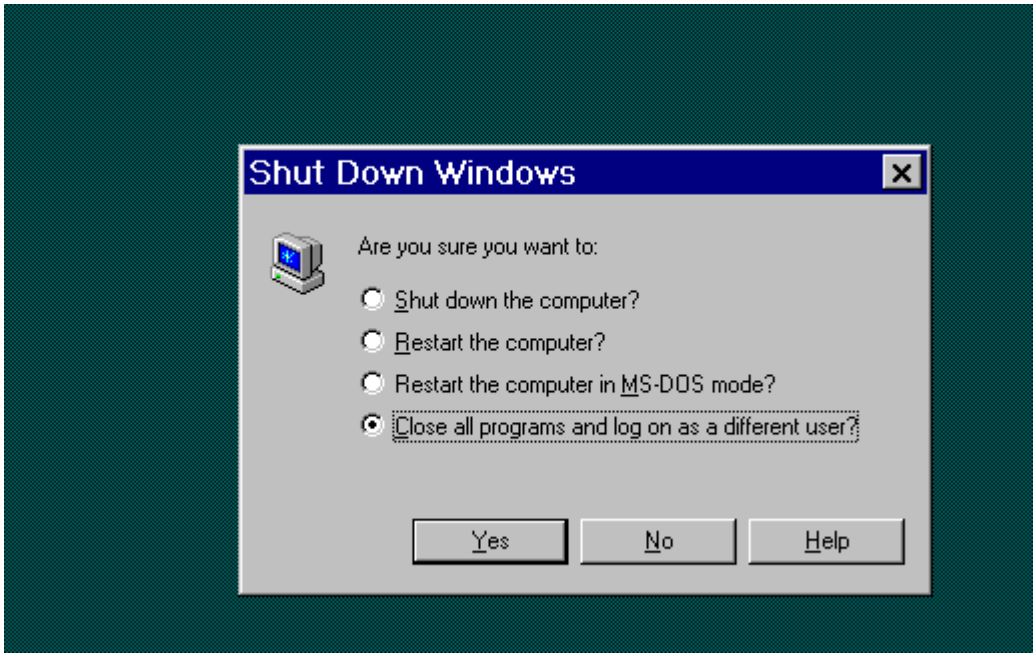
Defining a new user

The user name and the password have to be entered so that the workstation can transmit the graphics to the IP.

The user and the password are checked automatically when a network board is installed. In this case, the data below has to be entered. The following procedure has only to be followed when an additional user (in this case the DPU) is created.

❑ Select **Close all programs and log on as a different user?**

Note This line only appears when a network exists already.

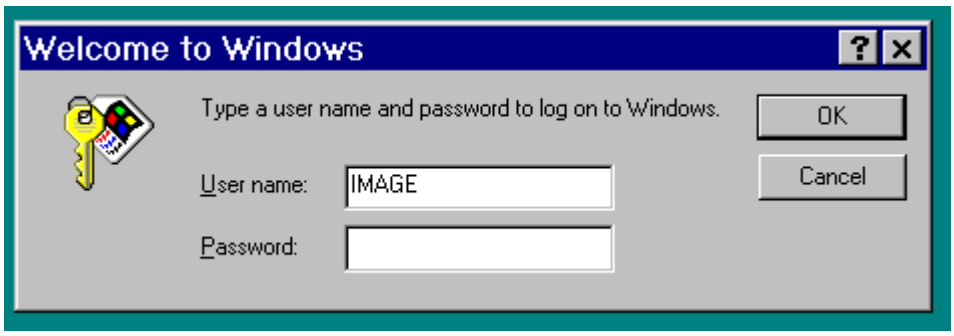


❑ The Welcome window is opened. Enter the following in capital letters:

– User name <IMAGE>

– Password <MSC>

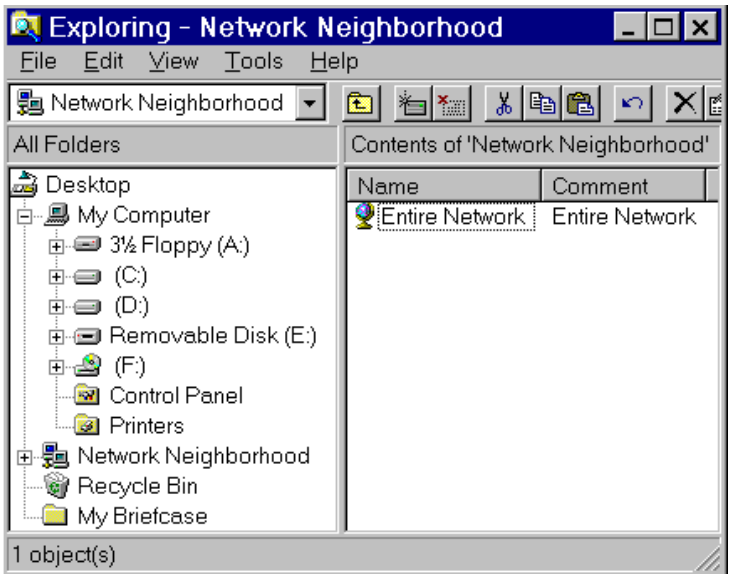
Note The entry of the password is hidden.



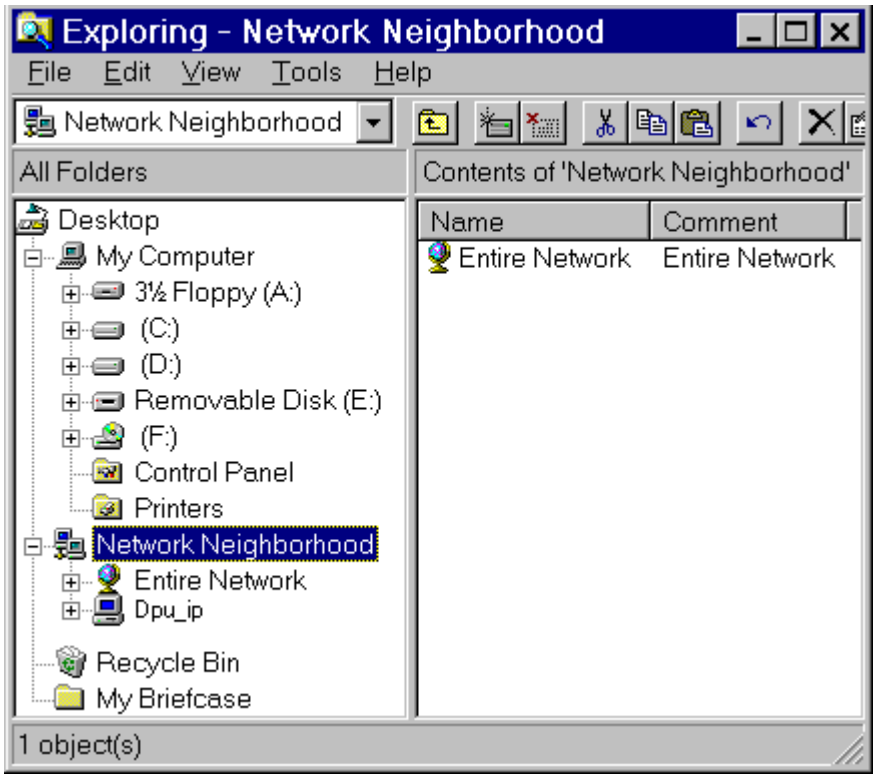
The new user has thus been created and the access to the IP is possible.

Allowing access of the workstation to the IP

- ❑ Start the Windows Explorer
- ❑ Search **Network neighborhood**

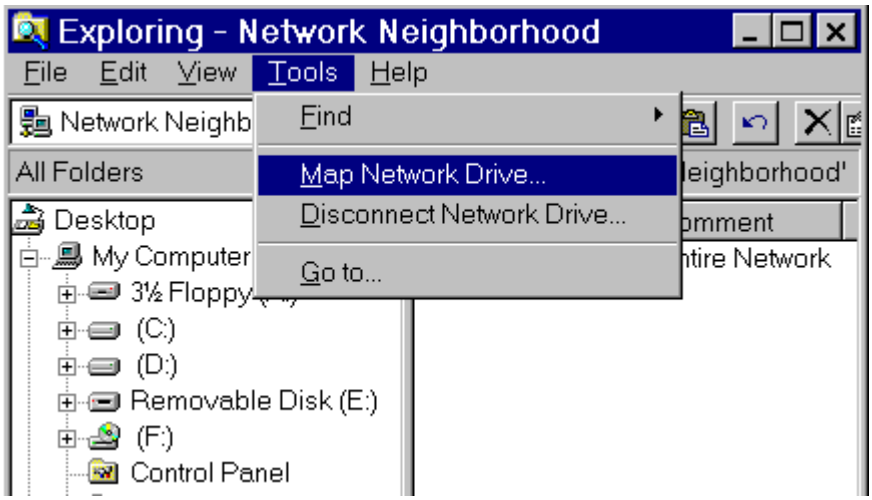


- ❑ After clicking **+, Dpu_ip** should appear. The network connection is established. Then specify a drive for the connection.

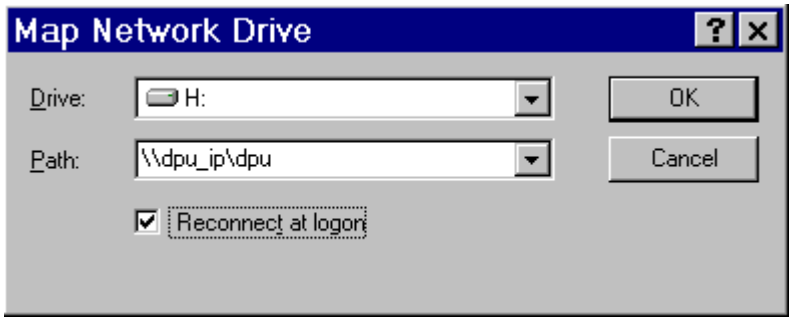


Specifying a drive

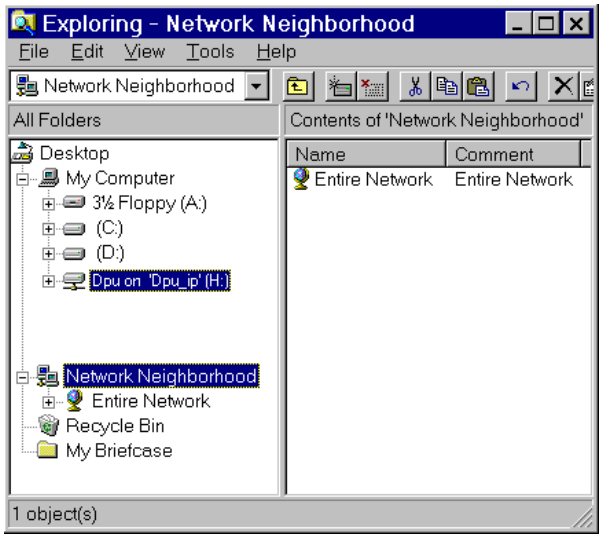
- ❑ Select **Tools/Map network drive**



- ❑ A free drive is proposed. We recommend to use a higher letter, e.g. **H**.
- ❑ Enter the path given in the example below.
- ❑ Confirm with **OK**.



After pressing <F5> (display refreshed) the DPU appears with the selected drive



This concludes the network preparation.

Technical Data

Hardware

Chassis	Value Line (small tower) max. dimensions HxWxD: 400mm x 200mm x 420mm
Power supply unit	min. 200 VA Voltage selector (outside): 110V / 230V (±15%) Immediate power-on after switch-on of the mains voltage (no relay switch)
PCI Motherboard	BAT; min. 4xPCI-Slot; min. 3xISA-Slot
CPU	Pentium 166 MHz MMX
Memory	64MB EDO; 512 kB PB-Cache
Hard disk	EIDE 2 GB (Manufacturer: Western Digital)
Floppy disk drive	1,44 MB
CD-ROM	ATAPI drive (8 ports)
Graphic board	Winner Trio 2 MB; in the first PCI slot from above
Interfaces	Ethernet board: 3COM 905 TX 10/100 Mbit RJ45; in the second PCI-Slot from above (Slot must be interruptible). Frame Grabber board of Matrix Vision; Agfa version; in the third PCI-Slot from above (Slot must be interruptible). F/Port-Parallel Interface (fast Centronics-compatible parallel interface of WARP-9; the board must be installed in the top ISA-Slot because of the position of the connector). Set Jumper for LPT2: Port-Adr. = 278H, IRQ = 5 2 x RS-232 (with FIFO; COM1 = 9 poles; COM2 = 25 poles) 1 x Parallel (EPP/ECP)
Monitor Keyboard Mouse	non non non
Cable (for all cables: Version corresponding to C standard)	• Power cable with earth leakage circuit breaker and connector for cold appliances (straight) (approx. 2m) • Monitor power cable (0,5...1m) with plug and socket for cold appliances • Frame grabber special cable 2,5 m (see Appendix D) Serial RS232 cable 2,5 m (25p D-Sub connector - 25p D-Sub socket connector; see Appendix B) Screened Ethernet cable for 100 Base-T data transfer with RJ-45 connectors; length 5m; *Important:* Cross-connect version for peer to peer connection without a hub, i.e. inputs and outputs coupled crosswise.

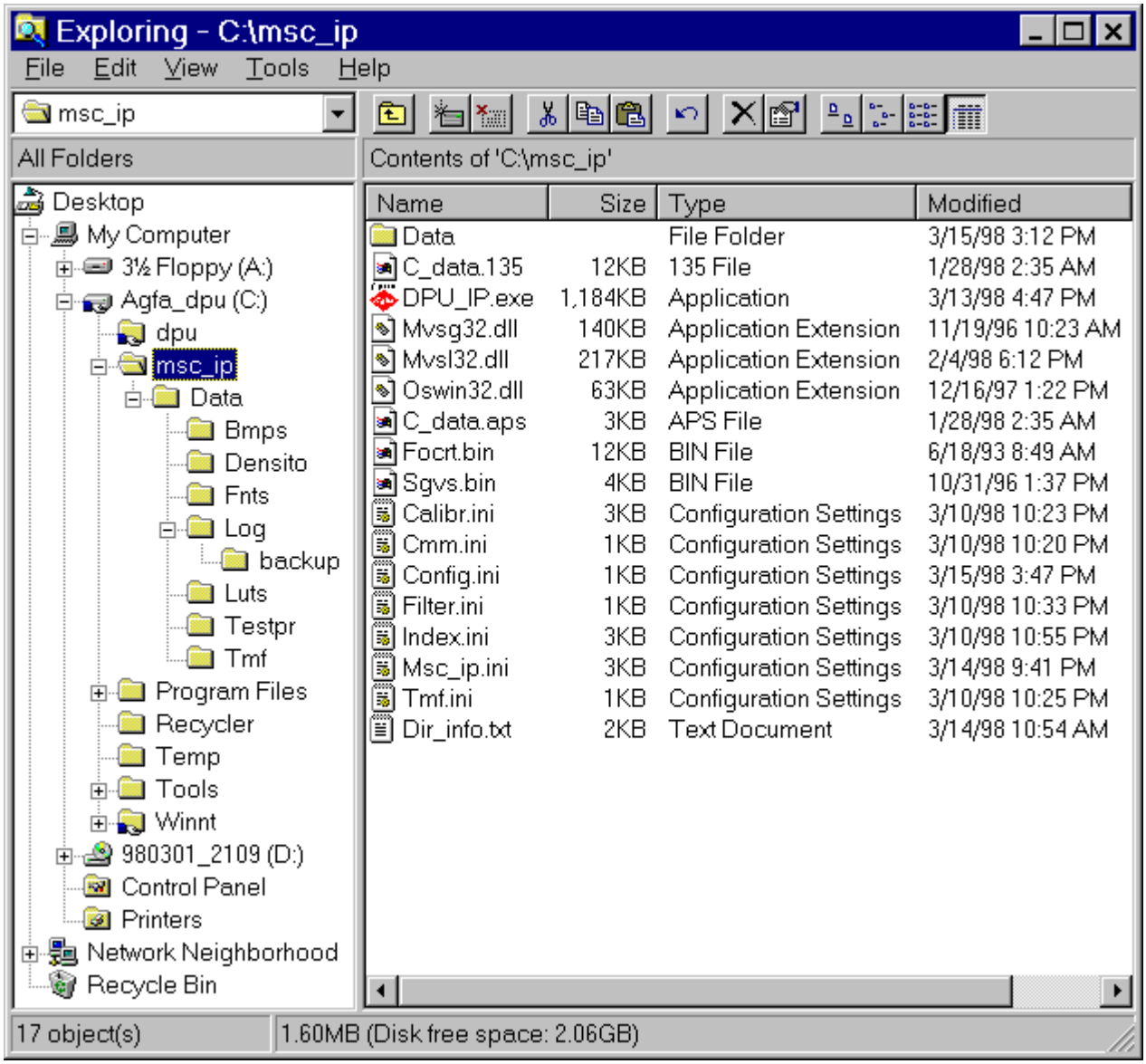
Software

Operating system	Windows NT 4 Workstation (English version) on CD
Installation	Special Bios-Setup settings: Booting only from C:\ No keyboard error message The Boot virus check has to be switched off IRQ 5 must be reserved for the ISA board (F/Port) Important for TX97 Motherboard: In **CHIPSET FEATURES SETUP** the following entry is necessary: **8-bit I/O Recovery Time : 4 BUSCLK**!
(The following settings are contained on the installation CD or the installation diskette)	Windows NT 4.0 Service pack 3 Tweak UI (from MS Freeware: Powertoys) Driver for Ethernet board Driver for Matrix Vision Frame Grabber Network protocols: NetBEUI TCP/IP Users and names in the system Tree of directories Desktop surface Specifying the user access for the individual users Monitor resolution (service purposes) must be set to 1024 x 768 pixels and 256 colours. Two 'Profiles' for normal operation and for the service mode with monitor, keyboard and mouse Selection window reduced to 3 sec upon the system start
Data carriers	Windows NT 4 English (Original CD + 3 Microsoft diskettes) Windows NT 4 Emergency Disk Media with drivers: VGA, CDROM, NIC Installation CD + Installation diskette (contains the IP Software and all tools required for the configuration of the system*)*

Names in the system

	Name / Number	Password	Rights
Computer	DPU_IP	-	-
NetBIOS Workgroup	AGFA_DPU	-	-
TCP/IP address (C class)	192.11.97.10	-	-
TCP/IP-Subnet address	255.255.255.0	-	-
Administrator	Administrator	AGFA_MUNICH	ADMINISTRATOR
Local user	DPU	AGFA	ADMINISTRATOR
Network user	IMAGE	MSC	USER
Service technician	IP_SERVICE	DPU_SERVICE	ADMINISTRATOR

Structure of directories



Description of the structure of directories

`dpu:` Directory for network data exchange
The network user has only access here

`msc_ip` + Subdirectories: All program and data files for the operation of the IP as DPU control computer

Description of the INI Files

The following description only contains the files that are relevant for the service.

CONFIG.INI

```
[Generals]
IIPCMD_LOG = 1
BouncedFrame = 2
DX_Output=0

[Printer]
; 5 CRT exposure
LastUsedPrinter  = 5
; CRTMarginMM is valid only, if
CRTTopMarginMM or CRTBottomMarginMM not
set !!!
;CRTMarginMM = 0

; Top margin is added to total paper
length
CRTTopJPGMarginMM = 0
CRTTopBMPMarginMM = 0
; Bottom margin is added to total paper
length
CRTBottomJPGMarginMM = 0
CRTBottomBMPMarginMM = 0

; Offset of image top from paper top -
not added to total paper length
; Note: if Offset + image length > paper
length - than image bottom will be cut!
CRTOffsetMM = 0

; Offset of image top from paper top -
only valid for Indexprints!
CRTIndexTopMarginMM = 5

MinSheetLength = 120
MaxSheetLength = 315
CRTHorzDPI = 294

CutLengthOffsetMM = 3

CRTSlugWidthMM = 3
[IPStorage]
MaxStoredIPs=11
[Selector]
PrintSelectedFrames=0
```

Recording of a log file 1=yes, 0=no

Output of the DX code on the Indexprint
0 no; 1 yes
Indication of the Indexprinter
3 = Mitsubishi; 4 = LCD; 5 = DPU

Cut length corrections for digital prints

FILTER.INI

```
[Density_Correction]
BereichBlue     = 00
MaxFaktorABlue  = 0.00
MaxFaktorBBlue  = 0.00
BereichGreen    = 00
MaxFaktorAGreen = 0.00
MaxFaktorBGreen = 0.00
BereichRed      = 00
MaxFaktorARed   = 0.00
MaxFaktorBRed   = 0.00
```

Colour corrections of a frame on the Indexprint

INDEX.INI

```
[Generals]
DX_Output  = 0
SharpenFactor = 60
IndexCamera=1


[135_Setup]
Blue  =       0.060
Green =       0.040
Red   =       0.080
SlopeOverBlue  =    0.000
SlopeOverGreen =   0.000
SlopeOverRed   =    0.000
SlopeUnderBlue  =   0.000
SlopeUnderGreen = 0.000
SlopeUnderRed   =  0.000
[APS_Setup]
Blue  = 0.000
Green = 0.000
Red   = 0.000
SlopeOverBlue  = 0.000
SlopeOverGreen = 0.000
SlopeOverRed   = 0.000
SlopeUnderBlue  = 0.000
SlopeUnderGreen = 0.000
SlopeUnderRed   = 0.000
[AutoCalibration]
AGBlue      = -0.739
AGGreen     = -0.709
AGRed       = -0.809
AGSBlue     = -0.093
AGSGreen    = -0.053
AGSRed      = -0.162
AGCycles    = 13
[CRT_LOGOS]
; Bitmaps for ’135’
layouts on 3.5" and 4"
paper
135_CRT_1_25  =
.\data\bmps\135C28I.bmp
135_CRT_2_25  =
.\data\bmps\135C28R.bmp

135_CRT_1_40  =
.\data\bmps\135C40I.bmp
135_CRT_2_40  =
.\data\bmps\135C40R.bmp
; Bitmaps for ’135’
layouts on 5" and 6" paper
135_CRT_1_25b =
.\data\bmps\135C28BI.bmp
135_CRT_2_25b =
.\data\bmps\135C28BR.bmp

135_CRT_1_40b =
.\data\bmps\135C40BI.bmp
135_CRT_2_40b =
.\data\bmps\135C40BR.bmp
```

Output of the DX code on the Indexprint: 0 no; 1 yes
Sharpening the Indexprints: The greater the value, the sharper the Indexprint
See INDEX in IP_MC.DAT: 1 Index Camera installed; 0 not installed

Production setting Indexprints 135
The values entered on the MSC are entered here

Production setting APS Indexprint
The values entered on the MSC are entered here

These values are altered when the IP logic is adjusted. (e.g. AUTOC = -10). After termination, these parameters should not be altered any more.
AGCycles is the number of films that were printed in this mode.

List of paths of the different Logos for Indexprints used for film size 135 and small Layouts

Indexprints with less than 28 views

Indexprints with more than 28 views

List of paths of the different Logos for Indexprints used for film size 135 and large Layouts

Indexprints with less than 28 views

Indexprints with more than 28 views

```
; Bitmaps for APS layouts
APS_CRT_1_25  =
.\data\bmps\APSC25I.bmp
APS_CRT_3_25  =
.\data\bmps\APSC25R.bmp

APS_CRT_1_40  =
.\data\bmps\APSC40I.bmp
APS_CRT_3_40  =
.\data\bmps\APSC40R.bmp
[CRT_Fonts]
FrameNrFont     =
.\data\fnts\_nfont24.fnt
;TextFont        =
.\data\fnts\_jap36.fnt
TextFont        =
.\data\fnts\_font36.fnt
TitleFont       =
.\data\fnts\_font36.fnt
SmallTitleFont  =
.\data\fnts\_nfont24.fnt
SmallFIDFont    =
.\data\fnts\_nfont24.fnt
;TitleFont       =
.\data\fnts\_jap36.fnt
DateTextFont    =
.\data\fnts\_symb36.fnt
DXFont          =
.\data\fnts\_nfont24.fnt
SmallDateTextFont =
.\data\fnts\_symb36.fnt
SelectionFont   =
.\data\fnts\_nfont24.fnt
;SelectionFont   =
.\data\fnts\_jap36.fnt
[Selection]
Selection1 =hole/label
Selection2 =under exposed
Selection3 =over exposed
Selection4 =fogged

[FilmInfo]
FilmTitle =No film title
```

List of paths of the different Logos for Indexprints used for film size APS

Indexprints with less than 28 views

Indexprints with more than 28 views

List of paths of the text fonts. They may be interchanged, if desired.
Lines beginning with a semicolon are intended for the Japanese market. Do not delete the semicolon!

Indication of the selection criterion, see chapter ?? Operation
Hole/Sticker
Underexposed
Overexposed
Scattered light

If no title is stored on an APS film, the text indicated here appears

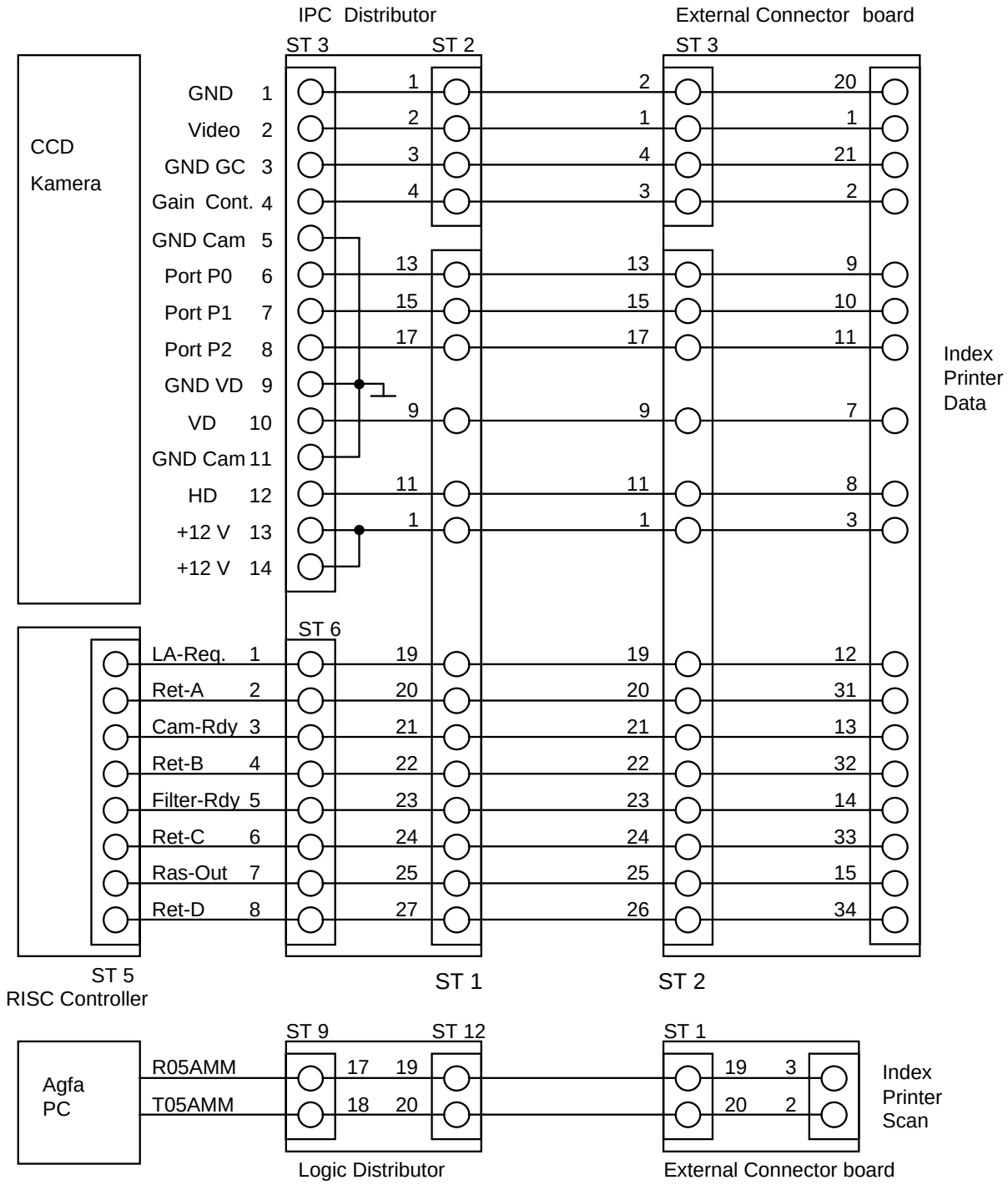
MSC_IP.INI

Only the data relevant for the service is listed here. All other parameters must not be altered.

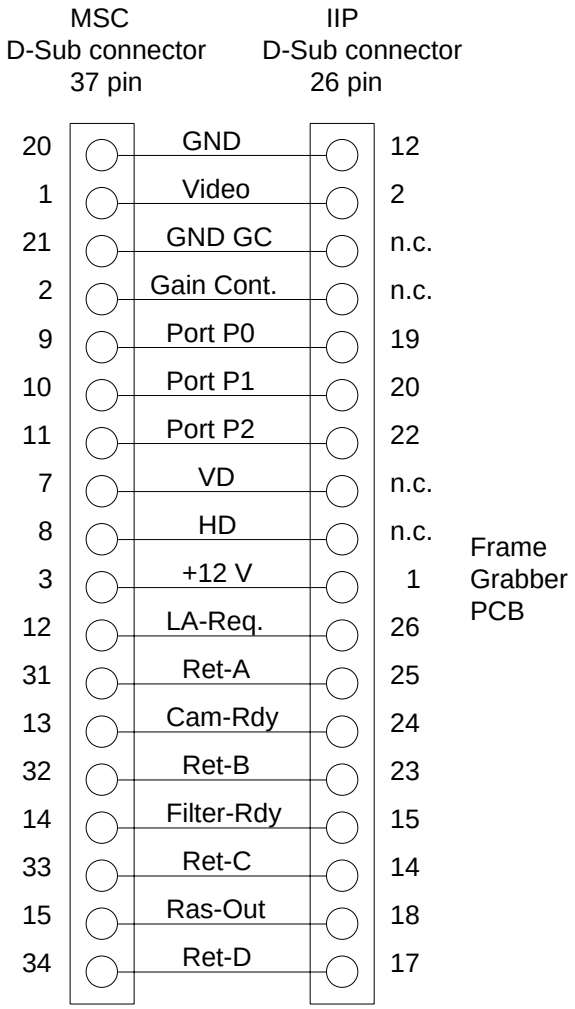
[FrameValue]	Layout of the frame of each view on the Indexprint
FrameValueRed=64 **FrameValueGreen=64** **FrameValueBlue=64**	By modifying these three values, the colour and brightness of the frame may be altered.
Thickness=2	Width of the frame in pixels. The higher the value, the more the image is cropped
[Debug]	Data output
UseDebugOutput = 1	Data output on screen, 0 no; 1 yes
SendExtraSerialInfo = 0	Data output via serial interface, 0 no; 1 yes
[Directories]	Definition of the sub-directory from which the digital files are printed
DigitalImagesPath = \dpu	
[AutoCorrection]	
AutoCal = 1	The AUTOC parameter of the file IP_MC.DAT is entered here.
MeanValueLut = .\data\luts\msclog.ini	
RGBDataOut = 1	
[Serial]	Application of the serial interface
SerPort = 2	Port 2 linked with the MSC (Index Printer Scan)
ExtraInfoPort = 1	Mouse connection
[Parallel]	Application of the parallel interface
ParPort = 2	free
CRTUseFPORT = 1	FOCRT connected to the FPORT

Circuit Diagrams

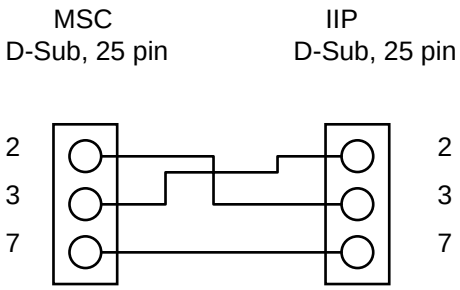
Wiring in the MSC



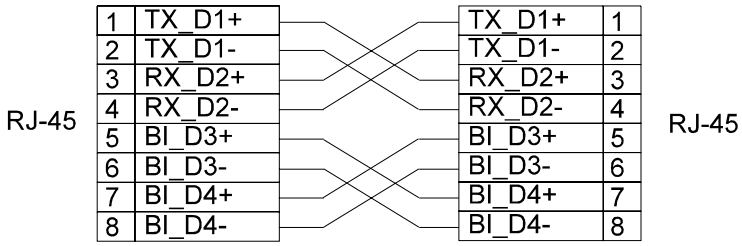
Cable Index Printer Data



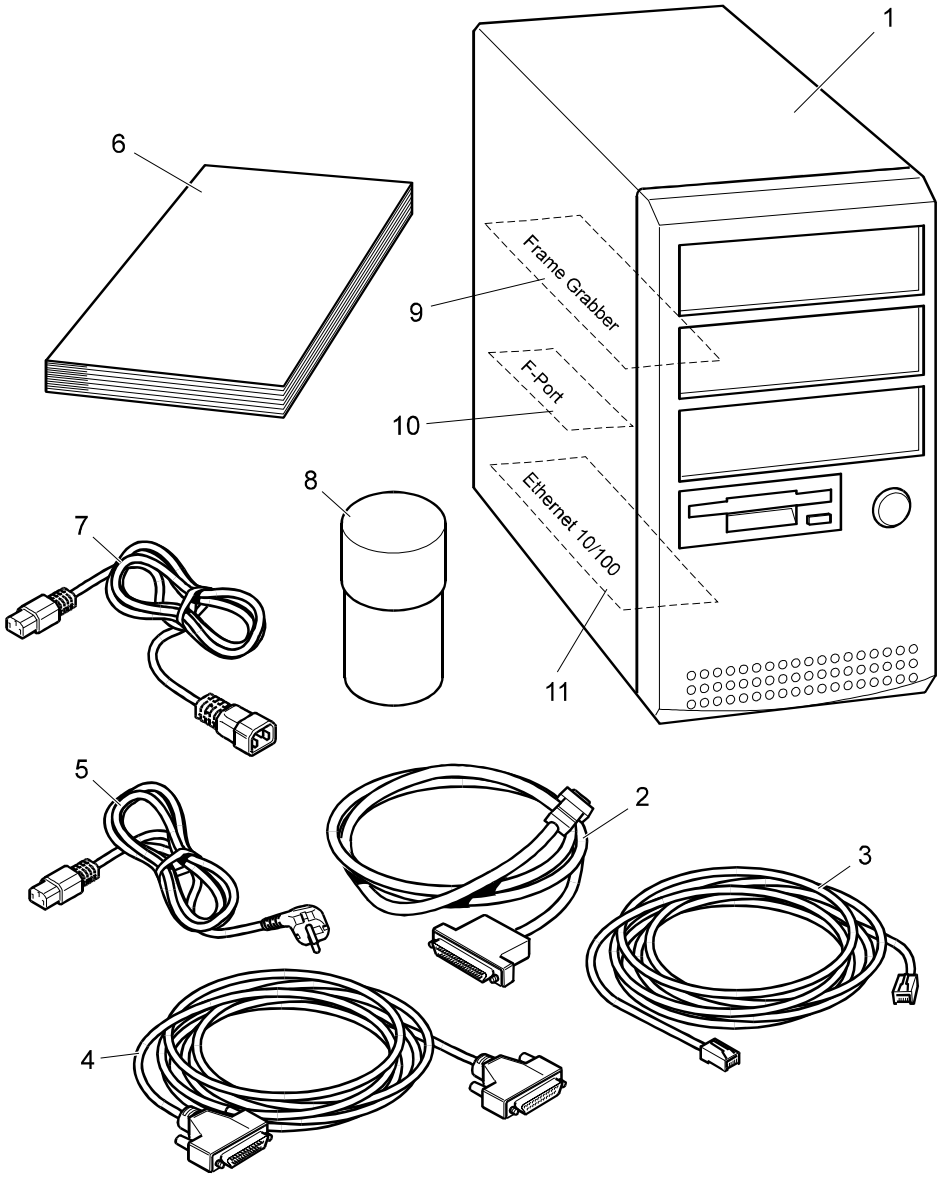
Cable Index Printer Scan



Cross Connect Ethernet Cable



Spare Parts



Pos Item no. Pos.	Teil-Nr. Part no. No. de ref.	ABC Code	Bezeichnung Description Désignation	Bemerkungen Remarks Remarques
1	8508/410		Index Image Processor	
2	7.8506.1284.0		Kabel Index Printer Data Cable Index Printer Data Câble Index Printer Data	
3	7.8508.1294.0		Cross Connect-Ethernetkabel 100T Base Cross Connect-Ethernet cable 100T Base Câble Ethernet „Cross Connect“ 100T Base	
4	7.8506.1287.0		Kabel Index Printer Scan Cable Index Printer Scan Câble Index Printer Scan	
5	7.8506.1286.0		Netzkabel Power cable Câble secteur	
6	7.8506.1282.0		Frame Grabber Karte Frame Grabber PCB Carte Frame Grabber	
7	7.0477.1011.0		Netzkabel 3 adrig Power cable 3 wires Câble secteur 3 fils	
8	7.0362.6058.0		Reinigungstücher mit Box Cleaning cloths with box Chiffons de nettoyage avec boîte	
9	7.8506.1282.0		Frame Grabber Karte Frame Grabber PCB Carte Frame Grabber	
10	7.8508.1295.0		F-Port F-Port F-Port	
11	7.8508.1293.0		Ethernet Card 10/100 Ethernet Card 10/100 Carte Ethernet 10/100	

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Installation

The program is supplied on a CD-ROM.

❑ Insert the CD-ROM in the drive.

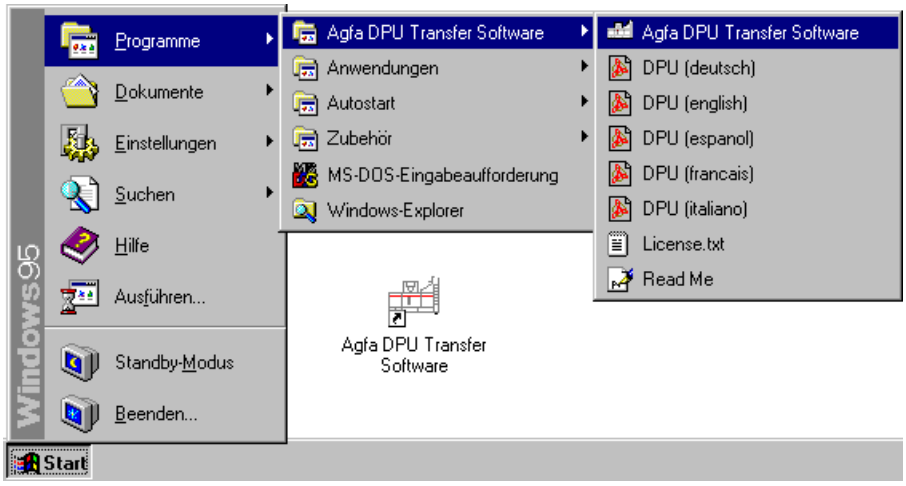
– The installation program is started automatically after you insert the CD-ROM.

❑ If the installation program does not start automatically, open the pop-up menu for the CD-ROM drive (in Windows Explorer, click the right mouse button on the CD-ROM icon) and choose **AutoPlay**.

– The splash screen appears, after which you are prompted to read the license agreement. The program is then installed on the hard disk.

– During the installation procedure a new directory **C:\DPUprint** is created, and the program files and online documentation (PDF files) are copied to that directory.

– The installation program creates an entry for the **Agfa DPU Transfer Software** at three separate locations: in the Start menu, on the Windows desktop and in the **StartUp** folder in the Start menu. Entries for the online documentation are also created in the Start menu.



dpu002d

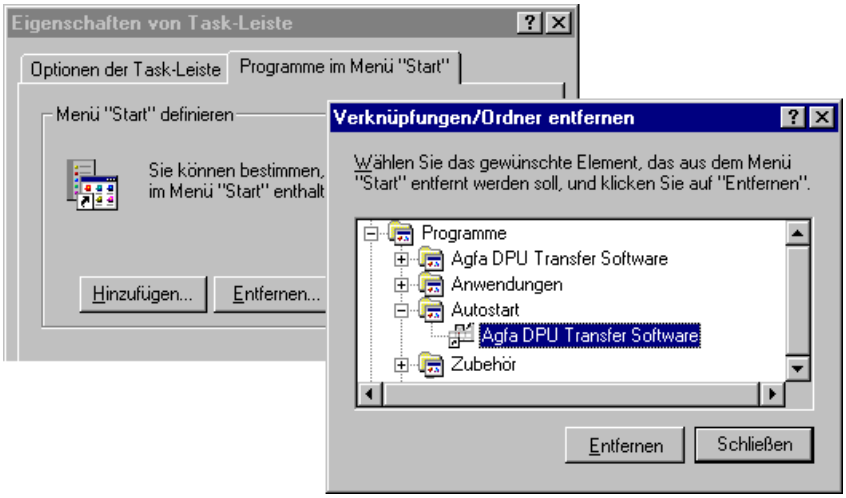
Installation of the software is then complete.

DPU Transfer can now be launched by double-clicking on the icon on the Windows desktop or via the menu item in the Start menu.

If the entry in the **StartUp** folder is activated, **DPU Transfer** will be launched automatically the next time that Windows is started.

If you do not want to run **DPU Transfer** every time that Windows is started, you can remove the shortcut from the **StartUp** folder.

- ❑ Open the pop-up menu for the Windows taskbar (click the right mouse button on the taskbar), and then choose **Properties.**
- ❑ Select the **Start Menu Programs** tab and click on the **Remove...** button.
- ❑ In the **Remove Shortcuts/Folders** window, open the **StartUp** folder.
- ❑ Select the **Agfa DPU Transfer Software** entry, and then click on the **Remove** button.
- ❑ Finally close both of these windows.



dpu003d

Hardware and software requirements

Hardware

A workstation with a 1.44-Mbyte floppy disk drive and a CD-ROM drive.

	Minimum system	**Recommended system**
Processor:	Pentium 166 MHz	Pentium II 233 MHz (or faster)
Memory:	64 Mbytes RAM	128 Mbytes RAM
Hard disk:	2 Gbytes	More than 4 Gbytes
Monitor:	17 inch	20 inch
Graphics card:	4 Mbytes graphics memory	8 Mbytes graphics memory
Network card:	10 Base T	100 Base T

Software

	Minimum system	**Recommended system**
Operating system:	Windows 95/98	Windows NT 4
Network software:	Hardware drivers installed NetBEUI protocol installed	Hardware drivers installed TCP/IP and NetBEUI protocols installed

Mode of operation

The **DPU Transfer Software** monitors two directories: the **Transfer directory** and the **Network directory**. **DPU Transfer** starts working as soon as any new images are copied to the **Transfer directory**. It reads the image files, sends them to the digital printer and then stores them in the **directory for printed images** (PRINTED) or, if they are not intended for printing or are not available in the correct image format, in the **directory for non-printed images** (NOTSEND).

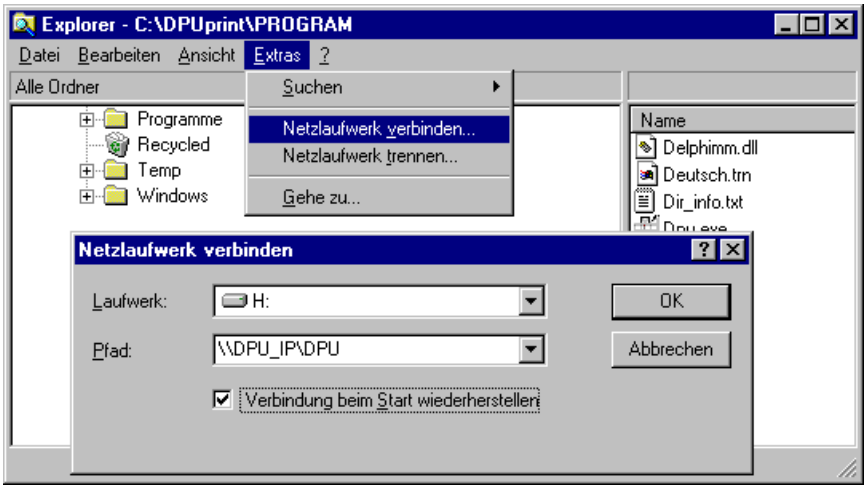
Before starting the program

Default network directory

The network directory **\\DPU_IP\DPU** should be available before **DPU Transfer** is started. If it is not, a dialog window appears in which the program prompts the user to specify the network directory for the image processor (IP).

The necessary network settings are explained in the description of the IP.

The network directory for the IP can also be linked to a network drive (for example H:):



dpu004d

Offline operation for testing

To allow offline operation of the software (for test purposes), the network directory can be set to **C:\DPUprint\DPU**. This directory is created as part of the installation procedure.
If the network directory is not the IP directory, the images will not be sent to the image processor.

Starting DPU Transfer

Start the program by double-clicking on the **DPU Transfer** icon on the Windows desktop (or by double-clicking on Dpu.exe in Windows Explorer).

If you are starting the program for the first time and the installation directory is not the default factory setting (C:\DPUprint), you are prompted to specify the working directories (Printed, Notsend, Network).

The entries can also be found in the **Dpu.ini** file (a semicolon at the start of a line marks the start of a comment line):

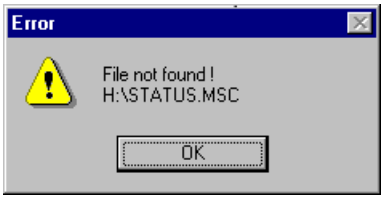
```
TRANSFER_DIRECTORY=C:\DPUprint
BACKUP_DIRECTORY=C:\DPUprint\Printed
NOT_SEND_DIRECTORY=C:\DPUprint\Notsend
; be sure to mount network directory (\DPU on IP) as local drive: H:\
;NETWORK_DIRECTORY=H:\
; ... or use the complete network path:
NETWORK_DIRECTORY=\\DPU_IP\DPU
; activate the following line instead to test without network
;NETWORK_DIRECTORY=C:\DPUprint\DPU
```

When the working directories have been set, the program works in the background after it has been started. This is indicated by the small program icon in the Windows taskbar on the right-hand side.

dpu005d

Double-clicking on this program icon opens the **DPU Transfer** dialog window.

If the network connection has not been established or if it is incorrectly configured, a message appears stating that the **STATUS.MSC** file cannot be found.



dpu006e

DPU Transfer expects to find the **STATUS.MSC** file in the **Network directory**. The default network directory for the IP is \\DPU_IP\DPU (network directory of the image processor). If the designation on the IP has been changed, the setting must be changed accordingly. For details of how to do this refer to the description of the IP.

Quitting DPU Transfer

Click the right mouse button on the DPU Transfer icon in the Windows taskbar to open the **DPU Transfer** pop-up menu.

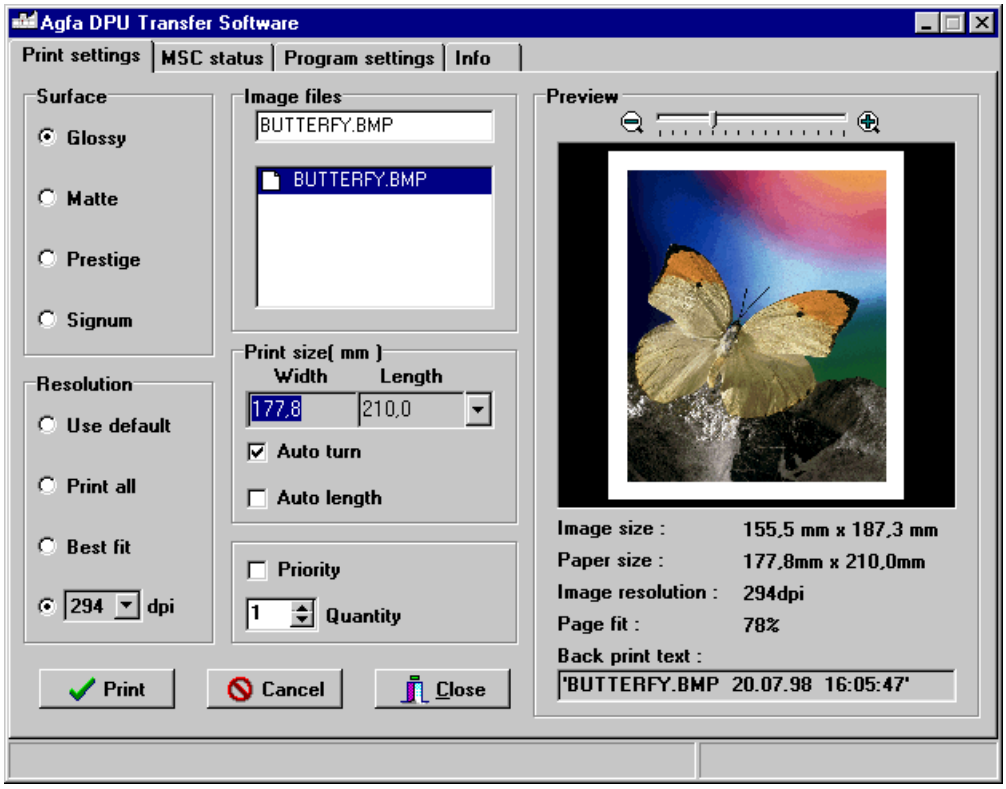
dpu007

Click on the **DPU Dialog…** menu option to open the **DPU Transfer** dialog window.

Click on **Quit** to close **DPU Transfer**.

Controls

The Print settings tab

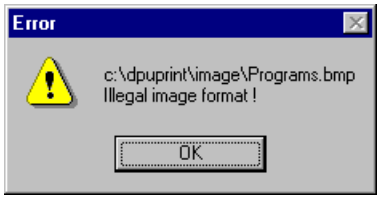


dpu008e

Print button

Once the settings have been made for the current image, the **Print** button places the image in the order queue for the digital printer. The image file is moved to the **directory for printed images**.

If the image file is in some way not suitable for printing, a message to that effect appears and the image file is sent to the **directory for non-printed images**.



dpu009e

Cancel button

The **Cancel** button can be used to ensure that an image is not placed in the queue. In this case the image file is sent to the **directory for non-printed images.**

Close button

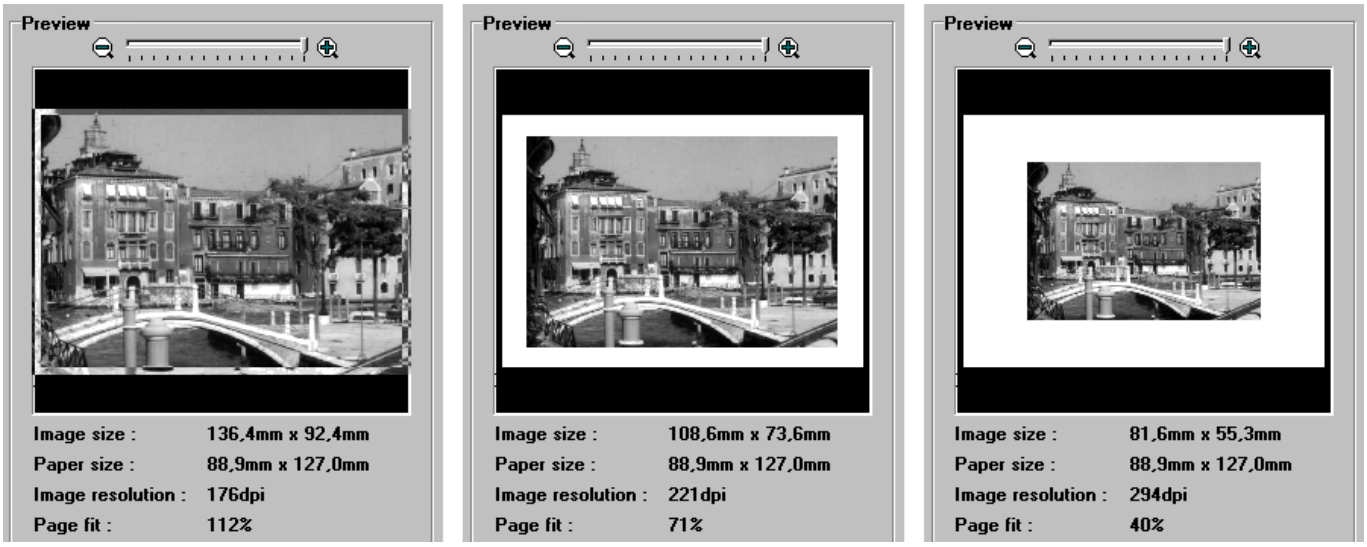
The **Close** button closes this dialog window. The program continues working in the background. Any orders still pending are retained and are sent to the printer.

Surface

The surface can be set to one of four types: **Glossy**, **Matte**, **Type 3** or **Type 4**. The definitions of the first two are fixed. The latter two can be defined on the **Program settings** tab in the **Surface** group. (The designation should be made in parallel with that in the MSC.)

Resolution

If the **Use default** setting is selected, the basic setting (294 dpi) is used.
If the **Print all** option is selected, the image is enlarged or reduced so that the entire image fits on the paper. The printout has a border of varying width, depending on the aspect ratios.
If the **Best fit** option is selected, the image is enlarged or reduced so as to achieve paper filling of at least 100 per cent. This means that the edges of the image file may be cut off to some extent. The printout has no border.
If the **dpi** (dots per inch) field is selected, you can enter specific resolution values. In this way the image can be enlarged or reduced. Large dpi values lead to a reduction of the image, and small values to an enlargement.

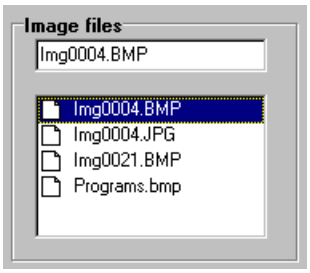

Preview
Image size : 136,4mm x 92,4mm
Paper size : 88,9mm x 127,0mm
Image resolution : 176dpi
Page fit : 112%
Preview
Image size : 108,6mm x 73,6mm
Paper size : 88,9mm x 127,0mm
Image resolution : 221dpi
Page fit : 71%
Preview
Image size : 81,6mm x 55,3mm
Paper size : 88,9mm x 127,0mm
Image resolution : 294dpi
Page fit : 40%

dpu010e

Note An image file which has 400 pixels (picture elements or dots) in the x-direction and to which a resolution of 100 dpi has been assigned is precisely 4 inches wide on the printout.
Calculation: 400 dots/100 dpi = 4 inches (approx. 10.2 cm)
If the image file is assigned a resolution of 200 dpi, the printout is 2 inches wide.
Calculation: 400 dots/200 dpi = 2 inches (approx. 5.1 cm)
1 inch is approximately 2.54 cm.

Image files

The name of the current image file is shown in the upper part. The lower part contains a list of all image files that can be processed. Clicking on a file name in the list makes that file the current file, allowing its settings to be edited.



dpu011e

Print size

The Print size setting provides a list of common paper sizes. If the **Auto turn** option is activated, the image will be automatically rotated through 90 degrees if necessary to make optimum use of the paper in the printer.
This means that portrait and landscape format images (with a size of 10 × 15 cm, for example) can be printed on 4-inch-wide paper and on 6-inch-wide paper.
The unit of measurement used (mm, inches, pixels) can be set on the **Program settings** tab in the **Dimension** field.

With the **Auto turn** option activated:

Preview
Image size : 73,7mm x 110,5mm
Paper size : 82,6mm x 116,8mm
Image resolution : 353dpi
Page fit : 84%
Preview
Image size : 110,5mm x 73,7mm
Paper size : 82,6mm x 116,8mm
Image resolution : 353dpi
Page fit : 84%

dpu012e

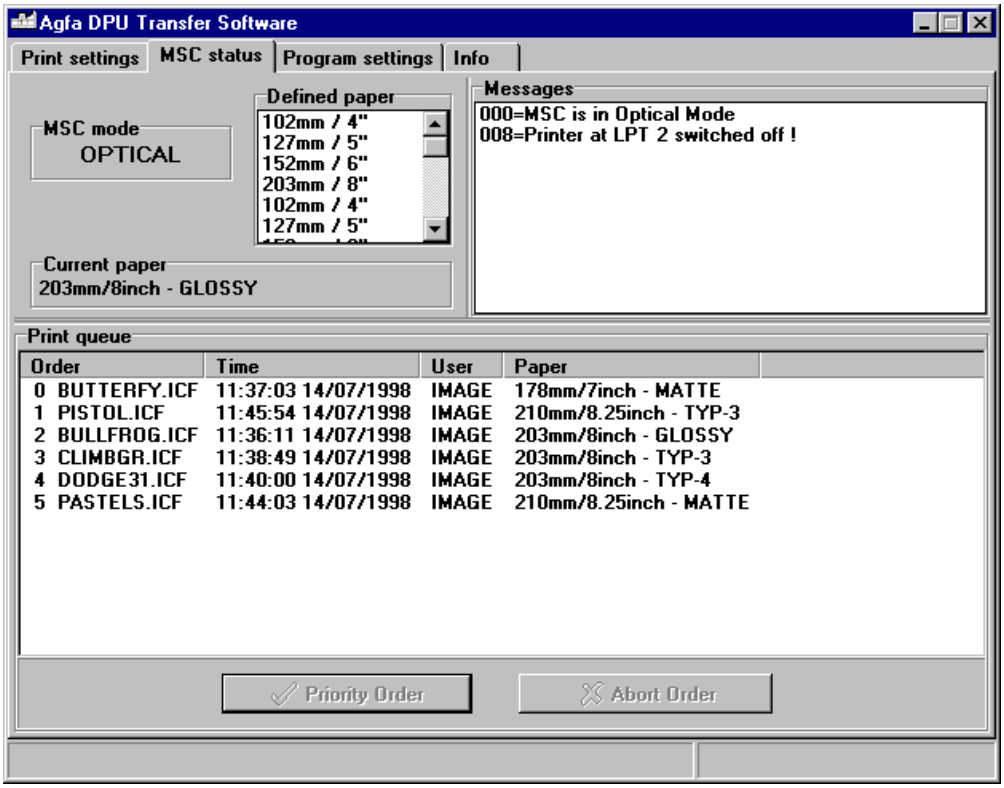
Priority, Quantity

The assignment of a priority makes it possible to display and process the orders in ascending order of priority under the **MSC Status** tab.

Preview

The **Zoom** slider enlarges and reduces the preview display of the current image (+ and – symbols).
Image size indicates the calculated image size at the current resolution. The **Paper size** is the set value. **Image resolution** indicates the resolution value (in dpi = dots per inch) on which the calculation of the image size is based. **Page fit** indicates the degree to which the paper is filled at the current resolution.

The MSC Status tab



dpu013e

MSC mode

This field indicates the current mode of the MSC (optical or digital).

Defined paper

This field contains a list of paper widths for which paper channels have been set up in the MSC.

Current paper

This field shows the width and surface of the paper that is currently held in the left-hand paper tray of the MSC.

Messages

The messages from the MSC are displayed here.

Print queue

The queue of files that are on their way to the digital printer can be seen here once again. The two buttons beneath the list can be used to rearrange orders (Priority Order) or delete them (Abort Order).

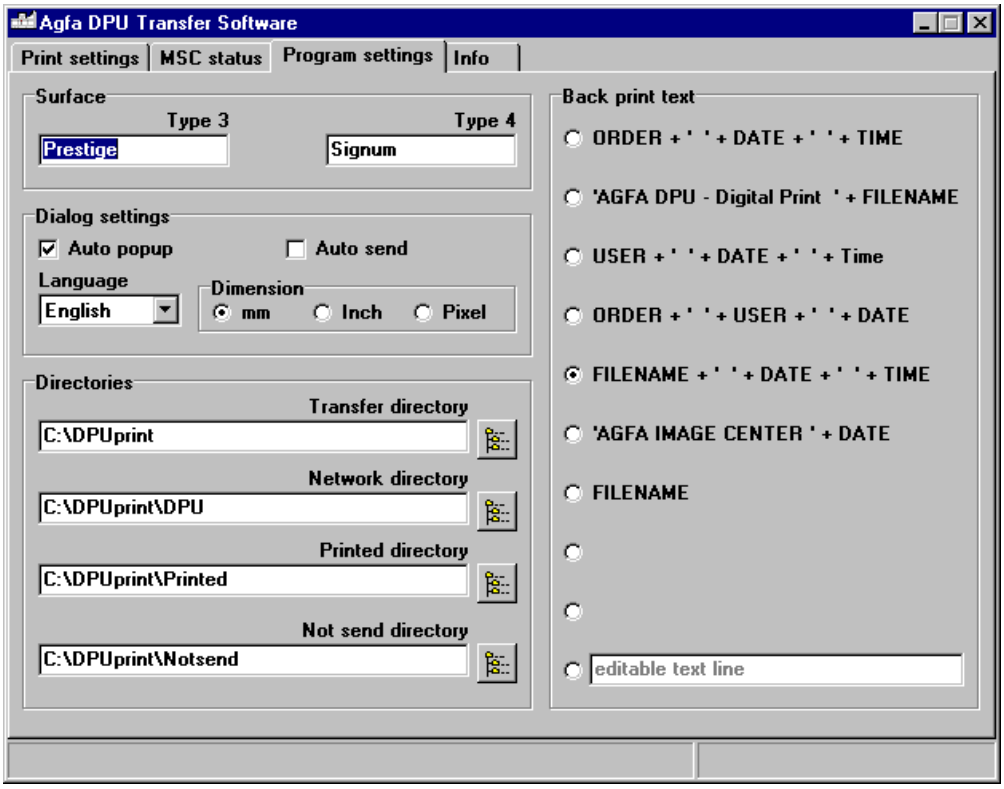
Priority Order

If the queue contains high-priority orders, these can be moved to the very top of the queue with this button. To do this, first click with the mouse on the important order and then click on the **Priority Order** button. The new sequence of orders is not displayed until you click on another tab and then switch back to the status display.

Abort Order

To delete an order from the queue, select the order in the list and click on this button. The screen display is updated after the current print procedure is completed.

The Program settings tab



dpu014e

Surface

In these fields names can be assigned to the two types of surface that are listed in third and fourth place in the **Surface** group on the **Print settings** tab. The names of these two types should match the settings for the MSC.

Dialog settings

If the **Auto popup** option is activated, the **DPU Transfer** processing window will appear on the screen as soon as an image file is copied to the Transfer directory.
If this option is not activated, the processing window must be opened manually by double-clicking on the program icon.

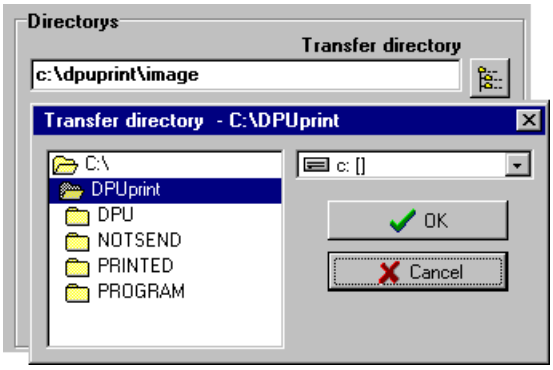
If the **Auto send** option is activated, the images are sent to the printer without any further query, retaining the parameters last set, as soon as they arrive in the Transfer directory.

Under **Language** there is a selection list from which to select the language in which the processing window is to be displayed.

The unit of dimension to be used for screen display (mm, inches, pixels) is set under **Dimension**.

Directories

This field shows a list of the **DPU Transfer** working directories. Clicking on the directory button to the right of the entry opens a directory dialog via which the entries can be changed or also checked (in particular network drives).



dpu015e

Network drives can only be accessed if the network and the access rights have been set up on the workstation (refer to the description in the user manual for the IP) and the IP is switched on.

The **Transfer** directory is monitored by **DPU Transfer**. This means that as soon as a new image file appears in this directory (when somebody copies it into the directory), it is registered by **DPU Transfer**.

The **Network** directory must point to the network directory of the image processor (IP). **DPU Transfer** expects to find the **status.msc** file in this directory. A message along the lines of **File not found: STATUS.MSC** means that the network drive currently set is incorrect and must be specified correctly, or that there is no network connection.

The **directory for printed images** (PRINTED) is the destination for the image files that have been sent to the printer.

The **directory for non-printed images** (NOTSEND) is where files are stored which have not been sent to the printer.

Back print text

The text selected here is printed on the back of the images. The entry shown in the text entry field at the bottom can be changed. All other texts can be changed in the **dpu.ini** file. To be able to do this, however, the DPUprint program must first be closed.

The ten texts are stored in the **Dpu.ini** file under the code **[BACK_PRINTER], Text1** to **Text10**.

Notes:

- Before you make any changes to the **Dpu.ini** file you should make a backup copy of the INI file.
- Do not use a word-processing program (such as MS Word) to make changes to the INI file.

If you want to edit the INI file use a simple text editor, such as Notepad *(to be found via the Start menu under Programs/Accessories/Editor).*

The texts are made up of fixed texts and symbolic names. Pure text which will always be printed exactly as it stands is enclosed between single quotation marks. For example: ‘Hello Aunt Ethel’.

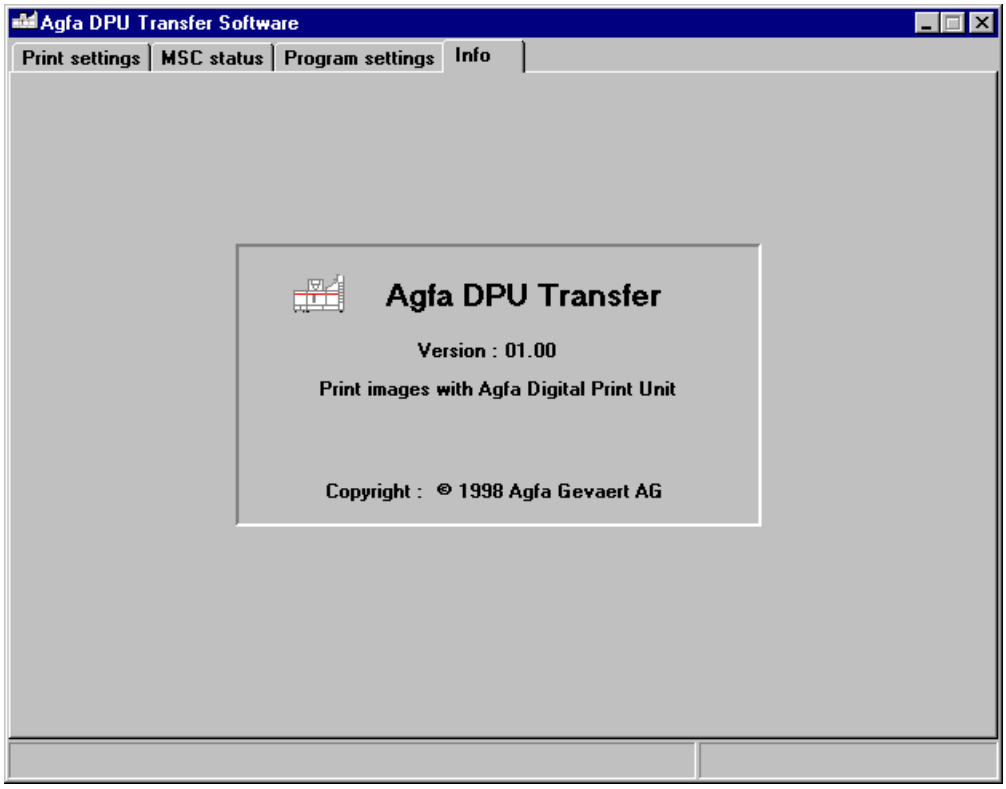
The names in capitals are symbolic names and are not placed between quotes: **DATE** – the current date, **TIME** – the current time, **FILENAME** – the name of the image file, **USER** – the name of the user and **ORDER** – the name of the order.

The individual text sections are separated by a plus sign (+).

A combination of text and symbolic names for the MSC could look something like this: ‘This picture was printed on ’ + DATE + ‘ at ‘ + TIME + ‘ in London.’

The printout would then be, for example:
This picture was printed on 27.05.1998 at 10:30 in London.

The Info tab



dpu016e

The Info tab contains information about the program, the program version and the copyright.

Messages

Dialog message	Description
Error **Directory not found!** **C:\DPUprint** or **C:\DPUprint\Printed** or **C:\DPUprint\Notsend**	The specified directory could not be found. If this message appears when the program is started, immediately after the message appears a dialog window is opened in which you can set the correct directory. Otherwise the directories can be set on the **Program settings** tab in the fields for the **Transfer directory, Network directory, Printed directory** and **Notsend directory**.
Error **File not found!** **STATUS.MSC**	The **status.msc** file could not be found in the **Network directory** currently set (the default setting is H:\). The directory must be set to the network directory of the image processor (IP) on the **Program settings** tab in the **Network directory** field.
Error **c:\dpuprint\example.bmp** **Illegal image format!**	The example image file contains an error as a result of which it cannot be printed. The image file is sent to the **Notsend directory**.
Error **Cannot write *.ICF**	The network directory is no longer accessible.

■